Analytical Data Package Prepared For

Fluor Handord

Radiochemical Analysis By

STL Richland STLRL

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Data Package Contains /36 Pages

Report Nbr: 35799

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05161	S07-003	B1MF06	J7D250210-1	JVLL61AA	9JVLL610	7121271
		B1MF16	J7D250210-2	JVLL91AC	9JVLL910	7121271
		B1MF16	J7D250210-2	JVLL92AA	9JVLL920	7163192
		B1MDY5	J7D250210-3	JVLMC1AA	9JVLMC10	7121271
		B1MDW6	J7D300106-1	JVXHJ3AA	9JVXHJ30	7159349
		B1MDW4	J7D300106-2	JVXJV3AA	9JVXJV30	7159349
		B1MDW2	J7D300106-3	JVXKH3AA	9JVXKH30	7159349
	S07-004	B1MPP7	J7D300112-1	JVXMM3AA	9JVXMM30	7159349
		B1MPN3	J7D300112-2	JVXMN3AA	9JVXMN30	7159349
		B1MPN4	J7D300112-3	JVXMT3AA	9JVXMT30	7159349
		B1MPP1	J7D300112-4	JVXMX3AA	9JVXMX30	7159349
		B1MPP5	J7D300112-5	JVXM03AA	9JVXM030	7159349
		B1MRL4	J7D300118-1	JVXPA1AA	9JVXPA10	7121275
		B1MRL5	J7D300118-2	JVXPC1AA	9JVXPC10	7121275
		B1MRL8	J7D300118-3	JVXPF1AA	9JVXPF10	7121275

Comments:

Report Nbr: 35799

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05161	S07-004	B1MRL9	J7D300118-4	JVXPL1AC	9JVXPL10	7121275
		B1MRL9	J7D300118-4	JVXPL1AD	9JVXPL10	7121271
		B1MRL9	J7D300118-4	JVXPL1AF	9JVXPL10	7121263
		B1MRL9	J7D300118-4	JVXPL1AG	9JVXPL10	7121268
		B1MRL9	J7D300118-4	JVXPL2AA	9JVXPL20	7163192
		B1MRL9	J7D300118-4	JVXPL2AE	9JVXPL20	7151397
		B1MRM0	J7D300118-5	JVXQR1AC	9JVXQR10	7121275
		B1MRM0	J7D300118-5	JVXQR1AD	9JVXQR10	7121271
		B1MRM0	J7D300118-5	JVXQR1AF	9JVXQR10	7121263
		B1MRM0	J7D300118-5	JVXQR1AG	9JVXQR10	7121268
		B1MRM0	J7D300118-5	JVXQR2AA	9JVXQR20	7163192
		B1MRM0	J7D300118-5	JVXQR2AE	9JVXQR20	7151397
	S07-003	B1MDP3	J7D300138-1	JVXV01AA	9JVXV010	7121276
		B1MDP3	J7D300138-1	JVXV01AC	9JVXV010	7121266
		B1MDP3	J7D300138-1	JVXV01AD	9JVXV010	7121267
		B1MDP5	J7D300138-2	JVXV61AA	9JVXV610	7121276
		B1MDP5	J7D300138-2	JVXV61AC	9JVXV610	7121266
		B1MDP5	J7D300138-2	JVXV61AD	9JVXV610	7121267
		B1MDP7	J7D300138-3	JVXWF1AA	9JVXWF10	7121276
		B1MDP7	J7D300138-3	JVXWF1AC	9JVXWF10	7121266
		B1MDP7	J7D300138-3	JVXWF1AD	9JVXWF10	7121267
		B1MDP9	J7D300138-4	JVXWH1AA	9JVXWH10	7121276
		B1MDP9	J7D300138-4	JVXWH1AC	9JVXWH10	7121266
		B1MDP9	J7D300138-4	JVXWH1AD	9JVXWH10	7121267

Comments:



STL Richland 2800 George Washington Way Richland, WA 99354

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Certificate of Analysis

Fluor Hanford 1200 Jadwin Ave. Richland, WA 99352

July 5, 2007

Attention: Steve Trent

SAF Number : S07-003, S07-004 Date SDG Closed : April 26, 2007 Number of Samples : Twenty (20)

Sample Type : Water SDG Number : W05161

Data Deliverable : 45-Day / Summary

CASE NARRATIVE

I. Introduction

Between April 24, 2007 and April 26, 2007 twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	DATE OF RECEIPT	<u>MATRIX</u>
B1MF06	JVLL6	4/24/07	WATER
B1MF16	JVLL9	4/24/07	WATER
B1MDY5	JVLMC	4/24/07	WATER
B1MDW6	JVXHJ	4/25/07	WATER
B1MDW4	JVXJV	4/25/07	WATER
B1MDW2	JVXKH	4/25/07	WATER
B1MPP7	JVXMM	4/25/07	WATER
B1MPN3	JVXMN	4/25/07	WATER
B1MPN4	JVXMT	4/25/07	WATER
B1MPP1	JVXMX	4/25/07	WATER
B1MPP5	JVXM0	4/25/07	WATER
B1MRL4	JVXPA	4/25/07	WATER
B1MRL5	JVXPC	4/25/07	WATER

 B1MRL8	JCXPF	4/25/07	WATER	
B1MRL9	JVXPL	4/25/07	WATER	
B1MRM0	JVXQR	4/25/07	WATER	
B1MDP3	JVXV0	4/26/07	WATER	
B1MDP5	JVXV6	4/26/07	WATER	
B1MDP7	JVXWF	4/26/07	WATER	
B1MDP9	JVXWH	4/26/07	WATER	

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Alpha Spectroscopy

Uranium 234, 235 and 238 by method RICH-RC-5039

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014

Gross Beta by method RICH-RC-5014

Strontium-90 by method RICH-RC-5006

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017

Iodine-129 (LL) by method RICH-RC-5025

Liquid Scintillation Counting

Enriched Tritium by method RICH-RC-5024

Technetium-99 by TEVA method RICH-RC-5065

Tritium by method RICH-RC-5007

Laser Induced Phosphorimetry

Total Uranium by method RICH-RC-5058

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

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Pacific Northwest National Laboratories
July 5, 2007

V. Comments

Alpha Spectroscopy

Uranium 234, 235 and 238 by method RICH-RC-5039

The LCS, batch blank, samples and sample duplicate (B1MRL9) results are within contractual requirements.

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:

Reduced volumes were analyzed based on elevated screen results for samples B1MDP3, B1MDP7 and B1MDP9. Except as noted, the LCS, batch blank, samples and sample duplicate (B1D6R6) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

Reduced volumes were analyzed based on an elevated screen results for samples B1MDP3, B1MDP7, B1MDP9 and B1MDPT DUP. Except as noted the LCS, batch blank, samples and sample duplicate (B1MDP9) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1MRM0) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017:

The LCS recovery was low. A recount did not improve the LCS recovery. The samples were reanalyzed. The results were acceptable. There was not enough sample remaining for a duplicate in the reanalysis batch. For a duplicate, sample B1MRL9 was counted again on a different detector. Except as noted, the LCS, batch blank, samples and sample duplicate (B1MRL9) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025:

The LCS, batch blank, samples and sample duplicate (B1FCJ9) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:

The initial count of the samples produced TSIEs grater than the upper boundary of the quench curve. Further mixing and a recount of the samples provided acceptable data. Except as noted, the LCS, batch blank, samples, sample duplicate (B1MRL9), and sample matrix spike (B1MRM0) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1MDP3) results are within contractual requirements.

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Pacific Northwest National Laboratories July 5, 2007

Enriched Tritium by method RICH-RC-5024

The blank was high on the first count. The samples were recounted and the blank result was still above contractual limits. The samples were reanalyzed and were acceptable. Except as noted, the LCS, batch blank, samples and sample duplicate (B1MDW6) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1MRM0), and sample matrix spike (B1MMP) results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Sherryl A. Adam

for Project Manager

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Drinking Water Method Cross References

	DRINKING WAT	ER ASTM METHOD CROSS REFERENCES
Referenced Method	Isotope(s)	STL Richland's SOP number
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-24		
The Gross Beta LCS is prepared with Sr/Y-90) (unless otherwise	e specified in the case narrative)

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/vn), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

	Report Definitions
Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) u _c _Combined Uncertainty.	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, u_c the combined uncertainty. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Le	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt(TPUs ² + TPUd ²)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

7/5/2007	9:25:48 AM				S	TL Rich	ılan	d Repor	rt				Lab Code: STLRL	
FormNbi	r: R	FormatType:	FEAD Vers	ion: 05	Rpt N	br: 35799		File Name:	h:\Reportdb\	edd\FeadIV\Rad\W051	l61.Edd, h:∖Rep	ortdb\e	dd\FeadIV\Rad\35799.E	Edd
Lab Sample Id: 9JVLL610	Client Id: B1MF06	Test User	Contract Nbr MW6-SBB-A1	SAF N b	or Sdg QC Nbr: Type: W05161			Moisture/ Solids%*:	Distilled Sample Volume On Date:				llection Date: 2007 10:32	
Batch 7121271	Analyte SR-90	CAS# 10098-97-2	Result 5.14E-02	Unit pCi/L	CntU 2S 1.7E-01	TotU 2S 2.1E-01	Qual U	MDA 4.62E-01	TrcYield 76.5	Method SRISO_SEP_PRE	Alq Size 1.0059E+00	Unit L	Analy Date/Time 06/10/2007 11:17	Act
Lab Sample Id: 9JVLL910	Client Id: B1MF16	Test User	Contract Nbr MW6-SBB-A1	SAF Nb	or Sdg Nbr: W05161	QC Type		Moisture/ Solids%*:	Distilled Volume	Sample On Date:			llection Date: 2007 12:20	
Batch 7121271	Analyte SR-90	CAS# 10098-97-2	Result 4.98E+02	Unit pCi/L	CntU 2S 4.8E+00	TotU 2S 7.1E+01	Qual	MDA 4.03E-01	TrcYield 80.6	Method SRISO_SEP_PRE	Alq Size 1.0048E+00	Unit L	Analy Date/Time 06/10/2007 11:17	Act
Lab Sample Id: 9JVLL920	Client ld: B1MF16	Test User	Contract Nbr MW6-SBB-A1	SAF No	or Sdg Nbr: W05161	QC Type		Moisture/ Solids%*:	Distilled Volume	Sample On Date:		1	llection Date: 2007 12:20	
Batch	Analyte	CAS#	Result		CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alg Size	Unit	Analy Date/Time	Act
7163192	BE-7	13966-02-4	-3.75E+01	pCi/L	3.3E+01	3.3E+01	U	4.96E+0		GAMMALL GS	2.0016E+00		06/13/2007 19:33	
7163192	CO-60	10198-40-0	2.84E-01	pCi/L	2.2E+00	2.2E+00	U	4.65E+00		GAMMALL GS	2.0016E+00		06/13/2007 19:33	
7163192	CS-134	13967-70-9	-2.17E-01	pCi/L		2.5E+00	U	4.72E+00		GAMMALL GS	2.0016E+00		06/13/2007 19:33	
7163192	CS-137	10045-97-3	8.92E-01	pCi/L		1.9E+00	U	3.97E+00		GAMMALL GS	2.0016E+00		06/13/2007 19:33	1
7163192	EU-152	14683-23-9	2.34E+00	pCi/L	6.1E+00	6.1E+00	U	1.13E+0		GAMMALL GS	2.0016E+00	L	06/13/2007 19:33	; 1
7163192	EU-154	15585-10-1	3.89E+00	pCi/L	7.6E+00	7.6E+00	U	1.61E+01		GAMMALL_GS	2.0016E+00	-	06/13/2007 19:33	. 1
7163192	EU-155	14391-16-3	2.10E-01	pCi/L	4.7E+00	4.7E+00	U	8.26E+00		GAMMALL_GS	2.0016E+00	L	06/13/2007 19:33	1
7163192	K-40	13966-00-2	3.25E+01	pCi/L	5.7E+01	5.7E+01	U	5.13E+0	1	GAMMALL_GS	2.0016E+00	L	06/13/2007 19:33	1
7163192	RU-106	13967-48-1	0.00E+00	pCi/L	0.0E+00	0.0E+00	U	3.90E+01	1	GAMMALL_GS	2.0016E+00	L	06/13/2007 19:33	. 1
7163192	SB-125	14234-35-6	-5.55E+00	pCi/L	5.9E+00	5.9E+00	U	9.41E+00)	GAMMALL_GS	2.0016E+00	L	06/13/2007 19:33	. 1
Lab Sample Id:		Test User	Contract Nbr	SAF N	Nbr:	QC Type		Moisture/ Solids%*:	Distilled Volume	Sample On Date:		I	llection Date:	
9JVLMC10			MW6-SBB-A1		W05161								2007 13:10	
Batch 7121271	Analyte SR-90	CAS# 10098-97-2	Result 1.55E+02	Unit pCi/L	2.9E+00	TotU 2S 2.2E+01	Qual	MDA 4.77E-01	TrcYield 64.9	Method SRISO_SEP_PRE	Alq Size 1.0066E+00	Unit L	Analy Date/Time 06/10/2007 11:13	Act
Lab Sample Id: 9JVXHJ30	Client Id: B1MDW6	Test User	Contract Nbr MW6-SBB-A1	SAF NE S07-003	or Sdg Nbr: W05161	QC Type		Moisture/ Solids%*:	Distilled Volume	Sample On Date:		- 1	llection Date: 2007 11:57	
Batch 7159349	Analyte H-3	CAS# 10028-17-8	Result 1.64E+02		CntU 2S 1.1E+01	TotU 2S 3.1E+01	Qual	MDA 5.40E+00	TrcYield 0 100.0	Method TRITIUM_ELECT_L	Alq Size _ 1.5001E-01	Unit L	Analy Date/Time 06/30/2007 03:09	Act

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Report Lab Code: STLRL 7/5/2007 9:25:48 AM File Name: h:\Reportdb\edd\FeadIV\Rad\W05161.Edd, h:\Reportdb\edd\FeadIV\Rad\35799.Edd FormatType: FEAD Version: 05 Rpt Nbr: 35799 FormNbr: R SAF Nbr QC Distilled Collection Contract Moisture/ Sample Client Test Sdg Lab User Nbr Nbr: Type: Solids%*: Volume On Date: Date: Sample Id: ld: 9JVXJV30 B1MDW4 MW6-SBB-A1 S07-003 W05161 04/25/2007 11:19 TrcYield Method Alg Size Analy Date/Time TotU 2S MDA Unit Act Batch Analyte CAS# Result Unit CntU 2S Qual 5.42E+00 100.0 TRITIUM ELECT L 1.5001E-01 06/30/2007 05:45 1 7159349 H-3 10028-17-8 2.30E+02 pCi/L 1.3E+01 4.2E+01 Lab Client Test Contract SAF Nbr Sdg QC Moisture/ Distilled Sample Collection Nbr Nbr: Solids%*: Volume On Date: Date: User Type: Sample Id: ld: 9JVXKH30 B1MDW2 MW6-SBB-A1 S07-003 W05161 04/25/2007 10:37 Ala Size **Batch** Analyte CAS# Result Unit CntU 2S TotU 2S Qual MDA TrcYield Method Unit Analy Date/Time Act 7159349 10028-17-8 7.82E+01 pCi/L 8.1E+00 1.7E+01 5.38E+00 100.0 TRITIUM ELECT L 1.5001E-01 06/30/2007 07:02 H-3 Distilled Collection Lab Client Test Contract SAF Nbr Sda OC Moisture/ Sample Solids%*: Volume On Date: Date: Sample Id: ld: User Nbr Nbr: Type: 04/25/2007 11:23 B1MPP5 W05161 9JVXM030 MW6-SBB-A1 S07-004 **TrcYield** Method Alg Size Analy Date/Time CAS# Result Unit CntU 2S TotU 2S Qual MDA Unit Act Batch Analyte 7.22E+01 pCi/L 1.6E+01 5.42E+00 100.0 TRITIUM ELECT L 1.50E-01 06/30/2007 13:30 | 7159349 H-3 10028-17-8 7.8E+00 Collection Client Contract SAF Nbr Sdg OC Moisture/ Distilled Sample Lab Test Solids%*: Volume On Date: Date: Sample Id: ld: User Nbr Nbr: Type: 04/25/2007 12:04 9JVXMM30 B1MPP7 W05161 MW6-SBB-A1 S07-004 TrcYield Method Ala Size Unit Analy Date/Time Act CAS# Unit CntU 2S TotU 2S Qual MDA Batch Analyte Result TRITIUM ELECT L 1.5001E-01 06/30/2007 08:20 7159349 H-3 10028-17-8 1.45E+02 pCi/L 1.0E+01 2.8E+01 5.38E+00 100.0 Collection SAF Nbr Sdg QC Moisture/ Distilled Sample Lab Client Test Contract User Nbr: Type: Solids%*: Volume On Date: Date: Nbr Sample Id: ld: 04/25/2007 09:53 9JVXMN30 B1MPN3 W05161 MW6-SBB-A1 S07-004 TrcYield Method Ala Size Unit Analy Date/Time Act MDA Batch Analyte CAS# Result Unit CntU 2S TotU 2S Qual 06/30/2007 09:38 5.42E+00 100.0 TRITIUM ELECT L 1.50E-01 7159349 H-3 10028-17-8 1.01E+02 pCi/L 8.8E+00 2.0E+01 Collection Lab Client Contract SAF Nor Sdg QC Moisture/ Distilled Sample Test On Date: Date: Nbr: Solids%*: Volume Sample Id: User Nbr Type: ld: 04/25/2007 08:00 9JVXMT30 B1MPN4 MW6-SBB-A1 S07-004 W05161 TrcYield Method Alg Size Unit Analy Date/Time Act CntU 2S TotU 2S Qual MDA Batch Analyte CAS# Result Unit TRITIUM ELECT L 1.50E-01 06/30/2007 10:55 7159349 8.0E+00 1.5E+01 5.39E+00 100.0 H-3 10028-17-8 6.43E+01 pCi/L

Lab

Sample Id:

9JVXMX30

Batch

Client

ld:

B1MPP1

Analyte

H-3

MDA

Distilled

Volume

TrcYield

5.38E+00 100.0

Sample

On Date:

TRITIUM ELECT L 1.5001E-01

Alq Size

Method

Collection

Date:

04/25/2007 10:42

Analy Date/Time

06/30/2007 12:13

Act

2

Unit

L

Moisture/

Solids%*:

Qual

QC

Type:

TotU 2S

Sdg

Nbr:

9.1E+00 1.9E+01

W05161

CntU 2S

SAF Nbr

Unit

pCi/L

CAS#

Test

User

10028-17-8

Contract

Nbr

Result

9.00E+01

MW6-SBB-A1 S07-004

⁷¹⁵⁹³⁴⁹ H

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

7/5/200	9:25:48 AM				S	TL Ric	hla	nd Repo	rt				Lab Code: ST	LRL	
FormN	br: R	FormatType:	FEAD Vers	ion: 05	Rpt N	br: 35799		File Name:	h:\Reportdb	ledd\FeadIV\Rad\W05	161.Edd, h:\Re	portdb\e	dd\FeadIV\Rad	\35799.	Edd
Lab Sample Id		Test User	Contract Nbr MW6-SBB-A1	SAF N b	or Sdg Nbr: W05161	Q(Typ		Moisture/ Solids%*:	Distilled Volume		A STATE OF THE STA		llection Date: 2007 11:45		
Batch 7121275	Analyte I-129L	CAS# 15046-84-1	Result 7.63E-02	Unit pCi/L	CntU 2S 1.5E-01	TotU 2S 1.5E-01	Qua U	al MDA 2.87E-01	TrcYield I 98.6	Method I129LL_SEP_LEPS	Alq Size 3.934E+00	Unit L	Analy Date/ 06/06/2007		Act
Lab Sample Id 9JVXPC10		Test User	Contract Nbr MW6-SBB-A1	SAF N b	r Sdg Nbr: W05161	Q(Typ		Moisture/ Solids%*:	Distilled Volume	- · · · · · · · · · · · · · · · · · · ·	***************************************		llection Date: 2007 11:45		APPA - APPA
Batch 7121275	Analyte I-129L	CAS# 15046-84-1	Result -6.29E-02	Unit	CntU 2S 1.3E-01	TotU 2S 1.3E-01	Q ua	II MDA 2.16E-01	TrcYield 97.8	Method I129LL_SEP_LEPS	Alq Size 3.9437E+00	Unit	Analy Date/ 06/06/2007		Act
Lab Sample Id 9JVXPF10		Test User	Contract Nbr MW6-SBB-A1	SAF Nb S07-004	r Sdg Nbr: W05161	Q(Typ		Moisture/ Solids%*:	Distilled Volume	Sample On Date:			llection Date: 2007 11:20		
Batch 7121275	Analyte I-129L	CAS# 15046-84-1	Result 6.62E-02	Unit		TotU 2S 1.3E-01	Q ua U	MDA 2.57E-01	TrcYield 100.8	Method I129LL_SEP_LEPS	Alq Size 3.9235E+00	Unit	Analy Date/ 06/06/2007		Act
Lab Sample Id: 9JVXPL10		Test User	Contract Nbr MW6-SBB-A1	SAF Nb S07-004	r Sdg Nbr: W05161	QC Typ		Moisture/ Solids%*:	Distilled Volume	Sample On Date:		į	llection Date: 2007 10:45		MANUFACTURE AND ADDRESS OF THE PARTY OF THE
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qua	I MDA	TrcYield	Method	Alq Size	Unit	Analy Date/	Time	Act
7121275	I-129L	15046-84-1	2.39E-03	•		1.2E-01	U	2.26E-01	101.6	I129LL_SEP_LEPS	3.9315E+00	L	06/06/2007	18:31	1
7121271	SR-90	10098-97-2	-9.78 E- 02	•	1.8E-01	2.1E-01	U	5.11E-01	65.1	SRISO_SEP_PRE	1.0081E+00	L	06/10/2007	11:13	1
7121263	U-234	13966-29-5	3.34E-02	•		6.8E-02	U	1.60E-01	91.5	UISO_PLATE_AEA	2.009E-01	L	05/24/2007	16:08	I
7121263	U-235	15117-96-1	0.00E+00	pCi/L		6.8E-02	U	1.60E-01	91.5	UISO_PLATE_AEA	2.009E-01	L	05/24/2007	16:08	ř
7121263	U-238	U-238	3.34E-02	•	6.8E-02	6.8E-02	U	1.60E-01	91.5	UISO_PLATE_AEA	2.009E-01	L	05/24/2007	16:08	I
7121268	Uranium	7440-61-1	1.90E-02	ug/L	2.6E-03	2.6E-03	U	8.22E-02		UTOT_KPA	2.55E-02	ML	06/08/2007	11:15	I
Lab Sample Id: 9JVXPL20	Client Id: B1MRL9	Test User	Contract Nbr	SAF Nb	Nbr:	QC Typ		Moisture/ Solids%*:	Distilled Volume	Sample On Date:			lection Date:		***************************************
Batch	Analyte	CAS#	MW6-SBB-A1		W05161	T. (1) 66						04/25/2	2007 10:45		
7163192	BE-7	13966-02-4	Result 6.45E-01			TotU 2S 2.6E+01	Qual U	MDA 4.77E+01	TrcYield	Method GAMMALL_GS	Alq Size 1.9324E+00	Unit	Analy Date/		Act
7163192	CO-60	10198-40-0	-5.70E-01	•		1.8E+00	U	3.23E+00		GAMMALL_GS	1.9324E+00 1.9324E+00	L	06/13/2007 06/13/2007		1
7163192	CS-134	13967-70-9	-4.95E-02	-	2.0E+00		_	3.66E+00		GAMMALL_GS	1.9324E+00	١	06/13/2007		l :
7163192	CS-137	10045-97-3	2.43E-02		1.9E+00		U	3.54E+00		GAMMALL_GS	1.9324E+00	L	06/13/2007		
7163192	EU-152	14683-23 - 9	3.85E+00	•	4.6E+00		U	8.95E+00		GAMMALL_GS	1.9324E+00	L	06/13/2007		
STL Richla	nd adSummaryE	dd v3.48	J Qual - N	lo U quali	fier has be	en assign	ied ai		or gamma	scan did not ident e Reporting Limit	ify the nucli				3

7/5/2007	9:25:48 AM				Si	TL Ricl	ılar	1d Repor	rt .			I	Lab Code: STL	RL	
FormNbr	: R	FormatType: F	EAD Vers io	on: 05	Rpt N	br: 35799		File Name: h	:\Reportdb\	edd\FeadIV\Rad\W051	61.Edd, h:\Rep	ortdb\ed	d\FeadIV\Rad\3	35799.E	idd
7163192	EU-154	15585-10-1	3.21E-01	pCi/L	4.6E+00	4.6E+00	U	9.29E+00		GAMMALL_GS	1.9324E+00	L	06/13/2007	19:34	.
7163192	EU-155	14391-16-3	-5.69E-01	pCi/L	4.2E+00	4.2E+00	U	7.38E+00		GAMMALL_GS	1.9324E+00	L	06/13/2007	19:34	. [
7163192	K-40	13966-00-2	1.08E+01	pCi/L	2.9E+01	2.9E+01	U	6.26E+01		GAMMALL_GS	1.9324E+00	L	06/13/2007	19:34	. 1
7163192	RU-106	13967-48-1	-5.72E+00	pCi/L	1.7E+01	1.7E+01	U	3.02E+01		GAMMALL_GS	1.9324E+00	L	06/13/2007	19:34	. 1
7163192	SB-125	14234-35-6	8.13E-01	pCi/L	4.8E+00	4.8E+00	U	8.94E+00	ı	GAMMALL_GS	1.9324E+00	L	06/13/2007	19:34	. 1
7151397	TC-99	14133-76-7	1.54E+00	pCi/L	4.2E+00	6.1E+00	U	1.01E+01	100.0	TC99_ETVDSK_LS	1.246E-01	L	06/02/2007	02:52	1
Lab Sample Id: 9JVXQR10	Client Id:	Test User	Contract Nbr	SAF Nb	r Sdg Nbr: W05161	QC Typ		Moisture/ Solids%*:	Distilled Volume	•		Į.	lection Date: 2007 09:00		
		CAS#	MW6-SBB-A1 Result		VV05101	TotU 2S	Qua	ıl MDA '	TrcYield	Method	Alg Size	Unit	Analy Date/	Time.	Act
Batch 7121275	Analyte I-129L	15046-84-1	1.97E-02	pCi/L	1.1E-01	1.1E-01	U	2.21E-01		1129LL SEP LEPS	•	L	06/06/2007		
7121271	SR-90	10098-97-2	1.35E-01	pCi/L	2.6E-01	2.6E-01	U	5.47E-01		SRISO SEP PRE		L	06/10/2007	11:13	1
	U-234	13966-29-5	-1.68E-02	pCi/L	5.9E-02	5.9E-02	U	1,77E-01		UISO PLATE AEA		L	05/24/2007	16:08	
	U-238	U-238	7.29E-02	pCi/L	9.8E-02	9.9E-02	U	1.59E-01		UISO PLATE AEA		L	05/24/2007	16:08	
7121268	Uranium	7440-61-1	0.00E+00	ug/L	0.0E+00	0.0E+00	U	2.10E-01		UTOT_KPA	2.65E-02	ML	06/08/2007	11:24	. 1
Lab Sample Id:	Client ld:	Test User	Contract Nbr	SAF Nb	r Sdg Nbr:	QC Typ		Moisture/ Solids%*:	Distilled Volume	•			lection Date:		
9JVXQR20	B1MRM0	!	MW6-SBB-A1	S07-004	W05161							04/25/2	2007 09:00		
Batch	Analyte	CAS#	Result		CntU 2S	TotU 2S	Qua		TrcYield	Method	Alq Size	Unit	Analy Date/I		Act
7163192	BE-7	13966-02-4	2.89E+00	pCi/L	2.0E+01	2.0E+01	U	3.81E+01		GAMMALL_GS	1.9552E+00	L	06/13/2007		
7163192	CO-60	10198-40-0	-2.81E-01	pCi/L	1.8E+00	1.8E+00	U	3.38E+00		GAMMALL_GS	1.9552E+00	L	06/13/2007		
	CS-134	13967-70-9	-8.07E-01	pCi/L	1.6E+00	1.6E+00	U	2.81E+00		GAMMALL_GS	1.9552E+00	L	06/13/2007		
	CS-137	10045-97-3	3.59E-01	pCi/L	1.6E+00	1.6E+00	U	3.00E+00		GAMMALL_GS	1.9552E+00	L	06/13/2007		
7163192	EU-152	14683-23-9	-9.54E-01	pCi/L	3.7E+00	3.7E+00	U	6.38E+00		GAMMALL_GS	1.9552E+00	L	06/13/2007		
7163192	EU-154	15585-10-1	-4.58E-01	pCi/L	3.8E+00	3.8E+00	U	7.49E+00		GAMMALL_GS	1.9552E+00	L	06/13/2007		
7163192	EU-155	14391-16-3	8.60E-01	pCi/L	2.8E+00	2.8E+00	U	5.45E+00		GAMMALL_GS	1.9552E+00	L	06/13/2007		
7163192	K-40	13966-00-2	5.47E-01	pCi/L	3.3E+01	3.3E+01	U	7.33E+01		GAMMALL_GS	1.9552E+00	L	06/13/2007 06/13/2007		
7163192	RU-106	13967-48-1	1.61E+01	pCi/L		1.5E+01	U	3,12E+01		GAMMALL_GS	1.9552E+00	L			
7163192 7151397	SB-125 TC-99	14234-35-6 14133-76-7	5.60E-01 2.76E+00	pCi/L pCi/L	3.2E+00 4.2E+00	3.2E+00 6.1E+00	U	6.20E+00 1.00E+01		GAMMALL_GS TC99_ETVDSK_LS	1.9552E+00 1.256E-01	L L	06/13/2007 06/02/2007		
Lab Sample Id: 9JVXV010	Client Id:	Test User	Contract Nbr	SAF Nb		Q(Typ	;	Moisture/ Solids%*:	Distilled Volume	Sample			lection Date: 2007 08:52	-	

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

7/5/2007	9:25:48 AM				\mathbf{S}	TL Ric	hlan	d Repor	t				Lab Code: STLR	L	
FormNb	r: R	FormatType: FE	EAD Vers i	on: 05	Rpt N	br : 35799		File Name: h	:\Reportdb\	edd\FeadIV\Rad\W051	61.Edd, h:\Re	portdb\e	dd\FeadIV\Rad\35	799.E	idd
∟ Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA 1	TrcYield	Method	Alq Size	Unit	Analy Date/Ti		Act
7121276	H-3	10028-17-8	3.04E+05	pCi/L	1.8E+03	1.1E+04		3.19E+02	100.0	906.0_H3_LSC	5.00E-03	L	05/22/2007	15:54	. 1
7121266	ALPHA	12587-46-1	4.41E-02	pCi/L	6.5E-01	6.5E-01	U	1.97E+00	100.0	9310_ALPHABETA	1.862E-01	L	06/08/2007	13:09	į I
7121267	BETA	12587-47-2	6.30E+01	pCi/L	4.1E+00	9.0E+00		3.26E+00	100.0	9310_ALPHABETA	1.856E-01	L	06/08/2007	13:35	i I
Lab Sample Id: 9JVXV610	Client Id: B1MDP5	Test User	Contract Nbr //W6-SBB-A1	SAF NE	Nbr:	QC Typ		Moisture/ Solids%*:	Distilled Volume				llection Date: 2007 09:42		
Batch	Analyte	CAS#	Result		CntU 2S	TotU 2S	Qual	MDA 1	FrcYield	Method	Alq Size	Unit	Analy Date/Ti	me	Act
7121276	H-3	10028-17-8	5.20E+04	pCi/L	7.6E+02	2.1E+03		3.19E+02	100.0	906.0_H3_LSC	5.00E-03	L	05/22/2007	18:38	i L
7121266	ALPHA	12587-46-1	2.40E+00	pCi/L	1.5E+00	1.6E+00		1.76E+00	100.0	9310_ALPHABETA	1.997E-01	L	06/08/2007	14:15	1
7121267	BETA	12587-47-2	1.01E+01	pCi/L	1.9E+00	2.3E+00		2.78E+00	100.0	9310_ALPHABETA	2.007E-01	L	06/08/2007	13:35	1
Lab Sample Id: 9JVXWF10		Test User	Contract Nbr VW6-SBB-A1	SAF NE	Nbr:	QC Typ		Moisture/ Solids%*:	Distilled Volume	•			llection Date: 2007 09:17		
Batch	Analyte	CAS#	Result		CntU 2S	TotU 2S	Qual	MDA 1	rcYield	Method	Alg Size	Unit	Analy Date/Ti	me	Act
7121276	H-3	10028-17-8	2.09E+05	pCi/L	1.5E+03	7.9E+03		3.17E+02		906.0 H3 LSC	5.00E-03	L	05/22/2007		ı
7121266	ALPHA	12587-46-1	7.18E+00	pCi/L	2.6E+00	3.1E+00		2.02E+00	100.0	9310_ALPHABETA	1.913E-01	L	06/08/2007	14:15	1
7121267	BETA	12587-47-2	2.06E+01	pCi/L	2.6E+00	3.7E+00		3.02E+00	100.0	9310_ALPHABETA	1.882E-01	L	06/08/2007	13:35	1
Lab Sample Id:		Test User	Contract Nbr	SAF N	Nbr:	Q(Typ		Moisture/ Solids%*:	Distilled Volume	•			llection Date:		
9JVXWH10	B1MDP9	f	MW6-SBB-A1										2007 10:12		_
Batch	Analyte	CAS#	Result		CntU 2S	TotU 2S	Qual		FrcYield	Method	Alq Size	Unit	Analy Date/Ti		Act
7121276	H-3	10028-17-8	4.08E+05	pCi/L		1.5E+04		3.15E+02		906.0_H3_LSC	5.00E-03	L	05/22/2007		
7121266	ALPHA	12587-46-1	5.39E+00	pCi/L	2.3E+00	2.6E+00		1.98E+00		9310_ALPHABETA		L	06/08/2007		
7121267	BETA	12587-47-2	2.43E+01	pCi/L	2.9E+00	4.3E+00		3.28E+00	100.0	9310_ALPHABETA	1.689E-01	L	06/08/2007	13:35	1

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Thu	rsday, July 05, 20	007				STL Ric	hland	QC Blank	Report			La	b Code:	STLRL	
	FormNbr: R		Formati	ype: FEAD		VersionNbr	: 05	File Name	: h:\Reportdb\edd\l	FeadIV\Rad\W0516	61.Edd, h:\Repo	ortdb\edd\	FeadIV	Rad\35799	Db3.6
l	Lab Sample Id:	J0LDQ1A	В		;	Sdg/Rept I	Nbr: W	05161 ;	35799	Collec	tion Date:	04/25/	2007 1	1:57	
(Client ld:	NA			i	Matrix:	W.	ATER	WATER	Samp	le On Date:				
j	Moisture/Solids	s%*:			(QC Type:	ВІ	LK		Recei	ved Date:	04/25/	2007		
		Contract Nbr V6-SBB-A19981	•	Test User	Case	Nbr SA	AS Nbr	Suffix	Decant	Distilled Volume	File	e ld		FSuffix AX	RТур Н
Batch Qc Ty		Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield		Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/U	R CL Typ
7159 BL		5.02E+00	pCi/L	6.6E+00 5.1E+00	U	5.38E+00	100.0		TRITIUM_ELI	E 1.5001E-01 L	06/30/2007 00:34				D

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Thursday, July 05, 2007 STL Richland QC Blank Report Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05161.Edd, h:\Reportdb\edd\W05161.Edd, h:\Reportdb\edd\W051

Lab Sample Id: J0Q5Q1AB Sdg/Rept Nbr: W05161 35799 Collection Date: 04/25/2007 09:00

Client Id: NA Matrix: WATER WATER Sample On Date:

Moisture/Solids%*: QC Type: BLK Received Date: 04/25/2007

SAF		Contract Nbr //W6-SBB-A19981	**	Test User	Case	Nbr SA	S Nbr	Suffix	Decant	Distilled Volume	File	e ld		FSuffix AZ	RTyp H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time	RPD/ UCL	RER/ UCL	LCS	
7163192		1.77E+01		1.8E+01	Ü	3.69E+01	rietu	76Rec	GAMMALL G		Analyzed 06/13/2007	UCL	OCL	LCLIO	D D
7103192 BLK	13966-02-		PCI/L	1.8E+01	U	3.09⊑+01			GAIVIIVIALL_G	3 1.9904E+00	19:36				U
7163192	CO-60	1.63E+00	nCi/l	2.0E+00	U	4.30E+00			GAMMALL G	S 19964F+00	06/13/2007				D
BLK	10198-40-		po c	2.0E+00	Ū	4.001.00			O/ (14)14// 122_C	l 1.000 (E. 00	19:36				
7163192		7.29E-02	pCi/L	1.6E+00	U	3.03E+00			GAMMALL G	S 1.9964E+00	06/13/2007				D
BLK	13967-70-		p ,	1.6E+00	•	0.000				L	19:36				
7163192		1.31E+00	pCi/L.	1.5E+00	U	3.06E+00			GAMMALL G	S 1.9964E+00	06/13/2007				D
BLK	10045-97-		•	1.5E+00						L	19:36				
7163192		3.13E+00	pCi/L	4.3E+00	U	8.16E+00			GAMMALL_G	S 1.9964E+00	06/13/2007				D
BLK	14683-23-	-9	•	4.3E+00					_	L	19:36				
7163192	EU-154	-1.24E+00	pCi/L.	5.1E+00	U	9.24E+00			GAMMALL_G	S 1.9964E+00	06/13/2007				D
BLK	15585-10-	-1		5.1E+00						L	19:36				
7163192	EU-155	-7.02E-01	pCi/L	2.8E+00	U	5.12E+00			GAMMALL_C	S 1.9964E+00	06/13/2007				D
BLK	14391-16-	-3		2.8E+00						L	19:36				
7163192	K-40	-1.13E+01	pCi/L	3.2E+01	U	6.92E+01			GAMMALL_G	S 1.9964E+00	06/13/2007				D
BLK	13966-00-	-2		3.2E+01						L	19:36				
7163192	RU-106	1.04E+01	pCi/L	1.5E+01	U	3.02E+01			GAMMALL_G	S 1.9964E+00					D
BLK	13967-48-			1.5E+01						L	19:36				_
7163192		-1.95E+00	pCi/L	3.7E+00	U	6.37E+00			GAMMALL_G	S 1.9964E+00					D
BLK	14234-35-	-6		3.7E+00						L	19:36				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Thursda	y, July 05, 2	007			5	STL Ric	chland	d QC Blan	k Report			La	ıb Code:	STLRL	***************************************
	FormNbr: F	1	FormatT	ype: FEAD		VersionNb	r: 05	File Nan	ne: h:\Reportdb\edd	\FeadIV\Rad\W051	61.Edd, h:\Rep	ortdb\edd	√FeadIV\F	₹ad\35799.E	Edd
Lab	Sample Id:	: JV1281AE	3		;	Sdg/Rept	Nbr: \	N05161	35799	Colle	ction Date:	04/25/	2007 10	0:45	
Clie	nt ld:	NA			1	Matrix:	V	VATER	WATER	Sam	ole On Date:				
Mois	sture/Solid	s%*:			•	QC Type:	E	BLK		Rece	ived Date:	04/25/	2007		
SAF		Contract Nbr W6-SBB-A19981	1	rest User	Case	Nbr S	SAS Nbr	Suffix	Decant	Distilled Volume	e Fil	e Id		FSuffix R	Тур Н
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Trac Yiel		-	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R . Typ
7121263 BLK	U-234 13966-29-5	9.51E-02 5	pCi/L	1.1E-01 1.1E-01	U	1.52E-01	97.6		UISO_PLAT	E_ 1.982E-01 L	05/24/2007 16:09				D
7121263 BLK	U-235 15117-96-1	0.00E+00 1	pCi/L	6.5E-02 6.5E-02	U	1.52E-01	97.6		UISO_PLAT	E_ 1.982E-01 L	05/24/2007 16:09				D
7121263 BLK	U-238 U-238	3.17E-02	pCi/L	6.5E-02 6.5E-02	U	1.52E-01	97.6		UISO_PLAT	E_ 1.982E-01 L	05/24/2007 16:09				D

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Thu	ersday, July 05, 2	2007			S	TL Ric	hlan	d QC	Blank	Report			La	b Code:	STLRL	
	FormNbr:	R	Format1	ype: FEAD		VersionNbr	: 05		File Name	: h:\Reportdb\edd\	FeadIV\Rad\W0516	1.Edd, h:\Repo	ortdb\edd\	FeadIV	Rad\35799.	Edd
ı	Lab Sample Io	l: JV1331AI	3		5	Sdg/Rept	Nbr:	W051	61 3	5799	Collec	tion Date:	04/25/	2007 0	9:00	
•	Client Id:	NA			•	Matrix:		WATE	R V	VATER	Samp	le On Date:				
3	Moisture/Solid	is%*:			(QC Type:		BLK			Receiv	ed Date:	04/25/	2007		
	SAF Nbr	Contract Nbr IW6-SBB-A19981		Test User	Case	Nbr S	AS Nbr		Suffix	Decant	Distilled Volume	File	e ld		FSuffix R BD	RTyp H
Batcl Qc Ty		Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC		icer eld	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ
7121 BL	1275 I-129L L K 15046 - 84-	-7.16E-03	pCi/L	1.3E-01 1.3E-01	U	2.29E-01	100.	.3		I129LL_SEP	_L 3.8501E+00 L	06/06/2007 2 0:21				D

Thursday	v, July 05, 2007	7			S	STL Ric	hlan	d QC	Blank	Report			La	b Code:	STLRL	
	FormNbr: R	1	FormatT	ype: FEAD	-	VersionNbr:	05		File Name	e: h:\Reportdb\edd\l	FeadIV\Rad\W0516	S1.Edd, h:\Repo	ortdb\edd\	FeadIV\f	Rad\35799	.Edd
Lab :	Sample ld:	JV1361AB	.		;	Sdg/Rept I	Nbr:	W0516	1 3	35799	Collec	tion Date:	04/26/2	2007 0	8:52	
Clier	nt ld:	NA			ı	Matrix:	,	WATE	۲ ۱	WATER	Samp	le On Date:				
Mois	ture/Solids%	·*:			(QC Type:		BLK			Recei	ved Date:	04/26/	2007		
SAF I	Nbr Co	ntract Nbr	7	est User	Case	Nbr SA	\S Nbr		Suffix	Decant	Distilled Volume	File	e ld		FSuffix I	RТур
	MW6	-SBB-A19981													BF	Н
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- ai	MDC	Trac Yie		Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ
7121276	H-3	3.62E+01	pCi/L	1.5E+02	U	3.18E+02	100.0	0		906.0_H3_LS	C 5.00E-03	05/22/2007				D
BLK	10028-17-8			1.3E+02							L	10:24				

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Thursda	y, July 05, 200	7			S	TL Ric	hlan	ıd QC	Blank	Report			La	b Code:	STLRL	
	FormNbr: R	F	ormatT	ype: FEAD		VersionNbr	: 05		File Name	: h:\Reportdb\edd\F	eadIV\Rad\W0516	61.Edd, h:\Repo	ortdb\edd\	FeadIV\F	Rad\35 7 99.	Edd
Clie	Sample Id:	JV1361DX NA			N	Sdg/Rept Matrix:		W0510		5799 VATER	Samp	tion Date: le On Date:			3:52	
	sture/Solids%	6*:			C	C Type:	·····	BLK			Recei	ved Date:	04/26/	2007		
SAF		ntract Nbr 6-SBB-A19981	1	est User	Case	Nbr S	AS Nbr		Suffix	Decant	Distilled Volume	File	e ld		FSuffix F BH	тур Н
Batch # / Qc Type 7121276 BLK	Analyt/ CAS# H-3 10028-17-8	Result/ Orig Rst 8.40E+00	Unit pCi/L	Tot/Cnt Uncert 2S 1.5E+02 1.3E+02	Qu- al U	MDC 3.24E+02	Yie	icer eld 0	Spk Conc/ %Rec	Analy Method 906.0_H3_LS6	Aliq Size/ C 5.00E-03 L	Date/Time Analyzed 05/22/2007 13:09	RPD/ UCL	RER/ UCL	LCS LCL/UC	R LTyp D

•	y, July 05, 200				\$			ıd QC		Report		100		ıb Code:		
	FormNbr: R		Format	ype: FEAD		VersionNt	or: 05		File Name	: h:\Reportdb\edd\f	FeadIV\Rad\W0516	61.Edd, h:\Rep	ortdb\edd	\FeadIV\i	Rad\35799 	.Edd
Lab	Sample Id:	JV13E1AE	3		;	Sdg/Rept	t Nbr:	W051	61 3	35799	Coiled	tion Date:	04/26/	2007 0	9:42	
Clier	nt ld:	NA			I	Matrix:		WATE	R V	WATER	Samp	le On Date:				
Mois	sture/Solids%	* . 2 -			(QC Type:	:	BLK			Recei	ved Date:	04/26/	2007		
SAF		ntract Nbr S-SBB-A19981	7	Test User	Case	Nbr :	SAS Nbr	*	Suffix	Decant	Distilled Volume	Fil	e Id	**************************************	FSuffix I	RTyp H
Batch # / Qc Type 7121266	Analyti CAS# ALPHA	Result/ Orig Rst -8.11E-02	Unit pCi/L	2.2E-01	Qu- al U	MDC 9.07E-01	Yi	icer eld .0	Spk Conc/ %Rec	Analy Method 9310_ALPHA	Aliq Size/ B 2.003E-01	Date/Time Analyzed 06/08/2007	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ D
BLK	12587-46-1			2.2E-01							L	14:15				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Thursdo	ay, July 05, 200	7			S	STL Ricl	hland	l QC Blai	ık Report			La	b Code:	STLRL	
	FormNbr: R	F	ormatT	ype: FEAD		VersionNbr:	05	File Na	ıme: h:\Reportdb\ed	d\FeadIV\Rad\W051	61.Edd, h:\Repo	ortdb\edd\	FeadIVF	Rad\35799.	Edd
Clie	o Sample Id: ent Id: isture/Solids%	JV13F1AB NA				Sdg/Rept N Matrix: QC Type:	۷	W05161 WATER BLK	35799 WATER	Sam	ction Date: ple On Date: ived Date:		2007 09 2007	9:17	
	Nbr Co	ntract Nbr S-SBB-A19981	Т	est User	Case		S Nbr	Suffix	Decant	Distilled Volume		e ld		FSuffix R	RTyp H
Batch #/ Qc Type 7121267 BLK	CAS#	Result/ Orig Rst 1.78E+00	Unit pCi/L	Tot/Cnt Uncert 2S 1.3E+00 1.2E+00	Qu- al U	MDC 2.45E+00	Trac Yiel 100.0	d %Re	•	Aliq Size/ HAB 1.978E-01 L	Date/Time Analyzed 06/08/2007 13:35	RPD/ UCL	RER/ UCL	LCIJUC	R L Typ D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

	Thursday	, July 05, 200	7			S	TL F	Richlan	ıd Q(Blank	Report			La	b Code:	STLRL	
L		FormNbr: R	F	ormatī	ype: FEAD		Version	Nbr: 05		File Name	: h:\Reportdb\edd\	\FeadIV\Rad\W0516	61.Edd, h:\Repo	ortdb\edd\	FeadIV	Rad\35799	.Edd
	Lab :	Sample Id:	JV13H1AE	3		;	Sdg/Re	pt Nbr:	W051	61 3	5799	Collec	tion Date:	04/25/	2007 0	9:00	
	Clier	ıt ld:	NA			1	Watrix:		WATE	ER 1	VATER	Samp	le On Date:				
	Mois	ture/Solids%	o*:			(QC Typ	e:	BLK			Recei	ved Date:	04/25/	2007		
	SAF		ntract Nbr S-SBB-A19981	1	Test User	Case	Nbr	SAS Nbr		Suffix	Decant	Distilled Volume	File	e Id		FSuffix I	RTyp H
Q	atch # / c Type 121268 BLK	Analyt/ CAS# Uranium 7440-61-1	Result/ Orig Rst 0.00E+00	Unit ug/L	Tot/Cnt Uncert 2S 0.0E+00 0.0E+00	Qu- al U	MD (2.10E-	C Yi	icer eld	Spk Conc/ %Rec	Analy Method UTOT_KPA	Aliq Size/ 2.52E-02 ML	Date/Time Analyzed 06/08/2007 10:35	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ D

Thu	ırsday	, July 05, 2007	7			S	TL Ric	hland	d QC	Blank	Report				La	b Code:	STLRL	
		FormNbr: R	F	ormatT	ype: FEAD		VersionNbr	: 05	· · · · · · · · · · · · · · · · · · ·	File Name	: h:\Reportdb\edd	d\Feadi	V\Rad\W0516	61.Edd, h:\Repo	ortdb\edd\	FeadIV	Rad\35799	.Edd
	Lab S	Sample Id:	JV13P2AB	1		\$	Sdg/Rept	Nbr: '	W0516	§1 3	35799		Collec	tion Date:	04/25/	2007 1	0:45	
1	Clien	it ld:	NA			ı	Matrix:	•	WATE	R ۱	WATER		Samp	le On Date:				
1	Mois	ture/Solids%	·*:			(QC Type:	1	BLK				Recei	ved Date:	04/25/	2007		
	SAF		ntract Nbr -SBB-A19981	7	est User	Case	Nbr S	AS Nbr		Suffix	Decant	Disti	illed Volume	File	e Id		FSuffix I	RTyp H
Batci Qc T		Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Trac Yie		Spk Conc/ %Rec	Analy Method		Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UC	R L Typ
7151 BI	1397 LK	TC-99 14133-76-7	2.50E+00	pCi/L	6.1E+00 4.2E+00	U	1.00E+01	100.0)		TC99_ETVE	DSK 1	1.254E-01 L	06/02/2007 07:03				D

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Th	ursday	v, July 05, 200	7			S	STL Ric	hlan	ıd Q0	C Blank	Report				La	b Code:	STLRL	
<u> </u>		FormNbr: R		FormatT	ype: FEAD		VersionNb	r: 05		File Name	: h:\Reportdb\edd	\Fea	adIV\Rad\W0516	61.Edd, h:\Repo	ortdb\edd\	FeadIV	Rad\3579	9.Edd
i J	Lab s	Sample Id:	JV13W1A	В		;	Sdg/Rept	Nbr:	W051	61 3	35799		Collec	tion Date:	04/24/	2007 1	3:10	
j	Clier	nt ld:	NA			ı	Matrix:		WATE	ER 1	WATER		Samp	le On Date:				
	Mois	ture/Solids?	6* :			(QC Type:		BLK				Recei	ved Date:	04/24/	2007		
	SAF		ontract Nbr 6-SBB-A19981		Test User	Case	Nbr S	AS Nbr	•	Suffix	Decant	Di	istilled Volume	File	e Id		FSuffix BS	RTyp H
Qc T	ch#/ Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Yi	acer eld	Spk Conc/ %Rec	Analy Method		Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/U	R CL Typ
	21271 BLK	SR-90 10098-97-2	3.99E-01	pCi/L	3.6E-01 3.5E-01	U	7.02E-01	52.7	•		SRISO_SEF	_P	1.005E+00 L	06/10/2007 11:13				D

Thursda	y, July 05, 2007	7		S	TL F	Richlan	d QC	C Cor	itrol Sai	mple Repor	rt		L	ıb Code:	STLRL	
	FormNbr: R		ormatT	ype: FEAD		VersionNbr	: 05		File Name	: h:\Reportdb\edd\l	FeadIV\Rad\W0516	61.Edd, h:\Rep	ortdb\edd	\FeadIV\	Rad\3579!	9.Edd
Lab	Sample Id:	J0LDQ1C	3		9	Sdg/Rept	Nbr:	W051	61 3	5799	Collec	tion Date:	04/25/	2007 1	1:57	
Clie	nt ld:	NA			A	Matrix:		WATE	R V	VATER	Samp	le On Date:	;			
Mois	sture/Solids%	*:			C	QC Type:		BS			Recei	ved Date:	04/25/	2007		
SAF		tract Nbr -SBB-A19981	**	Test User	Case	Nbr S	AS Nbr	,	Suffix	Decant	Distilled Volume	Fil	e ld		FSuffix AY	RTyp H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC		icer eld	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL		R CL Typ
7159349	H-3	4.31E+02	pCi/L	7.6E+01		5.38E+00	100.	0	4.49E+02	TRITIUM_ELI	E 1.5002E-01	06/30/2007			70	D
BS	10028-17-8			1.7E+01					96.1		L	01:52			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL). B Qual- Analyte was found in the associated laboratory blank above the MDC.

Thursda	y, July 05, 20	007		S	TL Ri	ichland	QC (Control Sa	ample Repo	rt			La	ıb Code:	STLRL	
	FormNbr: R		Format	ype: FEAD	V	ersionNbr:	05	File Nam	ne: h:\Reportdb\edd	l∖Fead	IV\Rad\W0516	61.Edd, h:\Repo	ortdb\edd	\FeadIV\f	Rad\35799	9.Edd
Lab	Sample Id:	J0Q5Q1C	S		Sc	dg/Rept N	lbr: W	/05161	35799		Collec	tion Date:	04/25/	2007 09	9:00	
Clie	nt ld:	NA			Ma	atrix:	W	'ATER	WATER		Samp	le On Date:				
Mois	Moisture/Solids%*: SAF Nbr Contract Nbr				Q	C Type:	В	S			Receiv	ed Date:	04/25/	2007		
SAF		Contract Nbr V6-SBB-A19981	•	Test User	Case N	ibr SA	S Nbr	Suffix	Decant	Dist	tilled Volume	File	e Id		FSuffix BA	RТур Н
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracei Yield		Analy Method		Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/U(R CL Typ
7163192		4.18E+01	pCi/L		3	3.37E+00		3.83E+01	GAMMALL_	GS	1.9988E+00	06/13/2007			75	D
BS	10198-40-0			9.0E+00				109.2			L	19:36			125	
7163192	CS-137	2.96E+01	pCi/L	6.5E+00	4	4.98E+00		2.48E+01	GAMMALL_	GS	1.9988E+00	06/13/2007			70	D
BS	10045-97-3			6.5E+00				119.0			L	19:36			130	
7163192	EU-152	9.01E+01	pCi/L	1.9E+01		1.15E+01		8.14E+01	GAMMALL	GS	1.9988E+00	06/13/2007			70	D
BS	14683-23-9			1.9E+01				110.6	_		L	19:36			130	

 $[\]label{eq:continuous} \begin{tabular}{ll} U\ Qual\ -\ Analyzed\ for, but\ the\ result\ is\ less\ than\ the\ Mdc\ or\ gamma\ scan\ did\ not\ identify\ the\ nuclide. \end{tabular}$

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Code: STLRL Thursday, July 05, 2007 STL Richland QC Control Sample Report File Name: h:\Reportdb\edd\FeadIV\Rad\W05161.Edd, h:\Reportdb\edd\FeadIV\Rad\35799.Edd VersionNbr: 05 FormatType: FEAD FormNbr: R Sdg/Rept Nbr: W05161 Collection Date: 04/25/2007 10:45 JV1281CS 35799 Lab Sample Id: NA Matrix: WATER WATER Sample On Date: Client Id: **Received Date:** 04/25/2007 QC Type: BS Moisture/Solids%*: Suffix Distilled Volume File Id FSuffix RTyp Test User Case Nbr SAS Nbr Decant SAF Nbr Contract Nbr BC Н MW6-SBB-A19981 Date/Time RPD/ RER/ LCS R Spk Conc/ Analy Aliq Tot/Cnt Batch #/ Analyt/ Result/ Qu-Tracer UCL UCL LCL/UCL Typ CAS# Orig Rst Unit Uncert 2S al MDC Yield %Rec Method Size/ Analyzed Qc Type 8.65E+00 UISO PLATE 2.011E-01 05/24/2007 70 D pCi/L 1.7E+00 1.50E-01 102.4 7121263 U-234 8.21E+00 9.9E-01 16:08 130 94.9 BS 13966-29-5 9.05E+00 UISO PLATE 2.011E-01 05/24/2007 70 D pCi/L 1.7E+00 7121263 U-238 8.39E+00 1.50E-01 102.4 16:08 130 1.0E+00 92.6 U-238 BS

27

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Thursda	y, July 05, 200	7		ST	ΓL Ric	hland (QC C	ontrol Sar	mple Repor	rt		La	b Code:	STLRL	A househouse on
	FormNbr: R	F	ormatType:	EAD	Vers	sionNbr: (05	File Name	: h:\Reportdb\edd\l	FeadIV\Rad\W0516	61.Edd, h:\Rep	ortdb\edd\	FeadIV	Rad\3579	9.Edd
	Lab Sample Id: JV133 Client Id: NA Moisture/Solids%*:				Sdg. Matr	/Rept Nb			5799 VATER		tion Date: le On Date:	04/25/	2007 0	9:00	
Moi	sture/Solids%	ó*:			QC T	Гуре:	BS			•	ved Date:	04/25/	2007		
SAF		ntract Nbr 6-SBB-A19981	Test Us	er	Case Nbr	SAS	Nor	Suffix	Decant	Distilled Volume	File	e Id		FSuffix BE	RТур Н
Batch #/ Qc Type 7121275 BS	Analyt/ CAS# I-129L 15046-84-1	Result/ Orig Rst 8.32E+00				MDC I6E-01 1	Tracer Yield 01.7	Spk Conc/ %Rec 1.02E+01 81.8	Analy Method I129LL_SEP_	Aliq Size/ _L 3.8007E+00 L	Date/Time Analyzed 06/06/2007 20:21	RPD/ UCL	RER/ UCL	LCS LCL/U- 70 130	R CL Typ D

Thursda	y, July 05, 200	7	S'	TLF	Richlan	d Q(C Con	trol Sai	mple Repor	t		La	b Code:	STLRL		
	FormNbr: R	ype: FEAD	AD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\V\R							61.Edd, h:\Repo	ortdb\edd	FeadIV	Rad\3579	9.Edd		
Clie	Sample Id: nt Id: sture/Solids%	JV1361CS NA %* :			N	Sdg/Rept Matrix: QC Type:		W0516 WATE BS	_	5799 VATER	Samp	ction Date: le On Date: ved Date:	04/26/ 04/26/		8:52	
SAF		ntract Nbr 6-SBB-A19981	T	est User	Case	Nbr \$	AS Nbr		Suffix	Decant	Distilled Volume	File	e Id		FSuffix BG	RТур Н
Batch #/ Qc Type 7121276 BS	Analyt/ CAS# H-3 10028-17-8	Result/ Orig Rst 2.66E+03	Unit pCi/L.	Tot/Cnt Uncert 2S 2.6E+02 2.1E+02	Qu- al	MDC 3.20E+02	Yie	_	Spk Conc/ %Rec 2.72E+03 97.8	Analy Method 906.0_H3_LS0	Aliq Size/ C 5.00E-03 L	Date/Time Analyzed 05/22/2007 11:46	RPD/ UCL	RER/ UCL		R CL Typ D

Thursday, July 05, 2007 STL Richland QC Control Sample Report Lab Code: STLRL FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\V\Rad\W05161.Edd, h:\Reportdb\edd\Fead\V\Rad\35799.Edd Lab Sample Id: JV1361EM Sdg/Rept Nbr: W05161 35799 Collection Date: 04/26/2007 08:52 Client Id: NA Matrix: **WATER** WATER Sample On Date: Moisture/Solids%*: QC Type: BS Received Date: 04/26/2007 SAF Nbr **Contract Nbr Test User** Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp MW6-SBB-A19981 ы Н Batch # / Analyt/ Result/ Tot/Cnt Qu-Tracer Spk Conc/ Analy Aliq Date/Time RPD/ RER/ LCS R Qc Type CAS# Orig Rst Uncert 2S Unit al MDC Yield %Rec Method Size/ Analyzed UCL UCL LCL/UCL Typ 7121276 H-3 2.37E+03 pCi/L 2.5E+02 3.23E+02 100.0 2.72E+03 906.0 H3 LSC 5.00E-03 05/22/2007 75 D BS 10028-17-8 2.1E+02 87.3 L 14:31 125

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Thui	rsday, July 05,	2007	S	TLR	tichlan	Lab Code: STLRL										
	FormNbr:	Type: FEAD	VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05161.Edd, h:\Rep									\FeadIV\I	Rad\35799).Edd		
C	_ab Sample lo Client ld: Moisture/Soli	NA	s		N	idg/Rept latrix: IC Type:		W051 WATI	•	5799 VATER	Samp	ction Date: le On Date: ved Date:		/2007 0 /2007	9:42	
5	SAF Nbr	Contract Nbr MW6-SBB-A1998		Test User	Case	Nbr S	AS Nbr		Suffix	Decant	Distilled Volume	File	e Id		FSuffix BK	RTyp H
Batch Qc Ty 71212 BS	pe CAS# 266 ALPHA	Result/ Orig Rst 1.86E+01	Unit pCi/L		Qu- al	MDC 8.79E-01	Yie	cer e ld 0	Spk Conc/ %Rec 2.26E+01 82.1	Analy Method 9310_ALPHAI	Aliq Size/ B 1.996E-01 L	Date/Time Analyzed 06/08/2007 15:25	RPD/ UCL	RER/ UCL	LCS LCL/UC 70 130	R L Typ D

18

	y, July 05, 2007 FormNbr: R		Format T	STL Richland QC Control Sample Report natType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05161.Edd, h:\Report											STLRL Rad\3579	9.Edd
Clier	Sample Id: nt Id: sture/Solids%	JV13F1CS NA i*:	5		М	dg/Rept I atrix: C Type:		W051 WATE	_	5799 VATER	Samp	ction Date: le On Date: ved Date:	04/26/ 04/26/		9:17	
SAF		ntract Nbr -SBB-A19981	T	est User	Case I	Nbr SA	S Nbr		Suffix	Decant	Distilled Volume	File	e Id		FSuffix BM	RТур Н
Batch #/ Qc Type 7121267 BS	Analyt/ CAS# BETA 12587-47-2	Result/ Orig Rst 2.36E+01	Unit pCi/L	Tot/Cnt Uncert 2S 3.9E+00 2.4E+00	Qu- al	MDC 2.41E+00	Tra Yie 100.0	eld O	Spk Conc/ %Rec 2.26E+01 104.5	Analy Method 9310_ALPHA	Aliq Size/ B 2.003E-01 L	Date/Time Analyzed 06/08/2007 15:30	RPD/ UCL	RER/ UCL	LCS LCL/U(70 130	R CL Typ D

Thursda	y, July 05, 200	07	S'	STL Richland QC Control Sample Report									Lab Code: STLRL				
	FormNbr: R Form				Versio	onNbr: 05		ile Name:	h:\Reportdb\edd	ortdb\edd\	FeadIV\	Rad\3579	9.Edd				
Clie	Sample Id: nt Id: sture/Solids	JV13H1CS NA %*:		est User	Sdg/Rept Nbr: Matrix: QC Type: Case Nbr SAS Nb		WATER W		5799 VATER	Sample On Date: Received Date: 04/25/			2007 0 2007				
		6-SBB-A19981		or ode.	Case No	373 1101	30	ıffix	Decant	Distilled Volume	File	e Id		FSuffix BO	RTyp H		
Batch # / Qc Type 7121268 BS	Analyt/ CAS# Uranium 7440-61-1	Result/ Orig Rst 3.60E+01	ug/L 4	Tot/Cnt Uncert 2S 4.3E+00 4.3E+00	Qu- al Mi 8.25i	DC Y	eld 3.	pk Conc/ %Rec 53E+01	Aпaly Method UTOT_KPA	Aliq Size/ 2.54E-02 ML	Date/Time Analyzed 06/08/2007 10:48	RPD/ UCL	RER/ UCL	LCS LCL/UC 75 125	R CL Typ D		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide. J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

²⁰

Thursda	y, July 05, 200	97		S'	TL R	ichlar	nd QC	C Con	itrol Sai	mple Repo	rt		La	b Code:	STLRL	
	FormNbr: R		Format1	ype: FEAD		/ersionNt	or: 05		File Name	: h:\Reportdb\edd	FeadIV\Rad\W051	61.Edd, h:\Repo	ortdb\edd	√FeadIV\I	₹ad\3579).Edd
Lab	Sample Id:	JV13H1D	S		s	dg/Rep	t Nbr:	W051	61 3	5799	Collec	ction Date:	04/25/	2007 0	9:00	
Clie	nt ld:	NA			M	atrix:		WATE	R 1	WATER	Samp	le On Date:				
Mois	sture/Solids ⁹	%*:			Q	C Type	:	BS			Recei	ved Date:	04/25/	2007		
SAF		ontract Nbr 6-SBB-A19981		Test User	Case	Nbr	SAS Nbr		Suffix	Decant	Distilled Volume	File	e ld	3346	FSuffix BP	RTyp H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tra Yie		Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/U(R CL Typ
7121268 BS	Uranium 7440-61-1	3.53E+00	ug/L	3.6E-01 3.6E-01		8.35E-0	2		3.61E+00 97.6	UTOT_KPA	2.51E-02 ML	06/08/2007 10:54			7 5 125	D

Thursda	Thursday, July 05, 2007					STL Richland QC Control Sample Report										
	FormNbr: R	ormatT	ype: FEAD		VersionNbr	: 05		File Name	: h:\Reportdb\edd\F	61.Edd, h:\Repo	ortdb\edd	FeadIV	Rad\3579	9.Edd		
Clie	Sample ld: nt ld: sture/Solids%	JV13P2CS NA (*:	3		N	Sdg/Rept Matrix: QC Type:		W0510 WATE BS		5799 VATER	Samp	tion Date: le On Date: ved Date:	04/25/ 04/25/		0:45	
SAF		ntract Nbr G-SBB-A19981	7	Test User	Case	Nbr SA	S Nbr		Suffix	Decant	Distilled Volume	File	e ld	**	FSuffix BR	RTyp H
Batch # / Qc Type 7151397 BS	Analyt/ CAS# TC-99 14133-76-7	Result/ Orig Rst 5.09E+02	Unit pCi/L	Tot/Cnt Uncert 2S 3.6E+01 1.3E+01	Qu- al	MDC 1.01E+01	Trac Yie 100.0	eld D	Spk Conc/ %Rec 5.39E+02 94.4	Analy Method TC99_ETVDS	Aliq Size/ K 1.248E-01 L	Date/Time Analyzed 06/02/2007 08:06	RPD/ UCL	RER/ UCL	LCS LCL/U 75 125	R CL Typ D

22

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

Thursday, July 05, 2007 FormNbr: R FormatType: FEAD						Richlan VersionNbr		C Co		mple Reportabledd\	rt FeadIV\Rad\W0516	51.Edd, h:\Rep			STLRL	9.Edd
Clier Mois	sture/Solids%	JV13W1C NA •*:	S		A	Sdg/Rept Matrix: QC Type:	Nbr:	W051 WATI BS	_	5799 VATER	Samp	tion Date: le On Date: ved Date:	04/24/2		3:10	
SAF		ntract Nbr -SBB-A19981	7	Test User	Case	Nbr S	AS Nbr		Suffix	Decant	Distilled Volume	File	e ld		FSuffix BT	RTyp H
Batch # / Qc Type 7121271 BS	Analyt/ CAS# SR-90 10098-97-2	Result/ Orig Rst 1.47E+01	Unit pCi/L		Qu- al	MDC 6.95E-01		cer eld	Spk Conc/ %Rec 1.37E+01 106.9	Analy Method SRISO_SEP_	Aliq Size/ _P 1.0014E+00 L	Date/Time Analyzed 06/10/2007 11:13	RPD/ UCL	RER/ UCL	LCS LCL/U6 70 130	R CL Typ D

	July 05, 2007		ormat]	Type: FEAD		L Rich		QC]	_	te Report : h:\Reportdb\edd\	FeadIV\Rad\W051	61.Edd, h:\Rep		ıb Code: \Fead(V)	-	.Edd
Client	ample ld: ld: ure/Solids%	JVLMC1CF B1MDY5 5*:	₹		N	idg/Rep latrix: IC Type		W051 WATE		5799 VATER	Samp	ction Date: ole On Date: ved Date:		2007 1	3:10	
SAF N B S07-003		ntract Nbr -SBB-A19981	•	Test User	Case	Nbr :	SAS Nbr	mmayrow and a s	Suffix	Decant	Distilled Volume	Fil	e Id		FSuffix I	RTyp H
	Analyt/ CAS# 5R-90 10098-97-2	Result/ Orig Rst 1.36E+02 1.55E+02	Unit pCi/L		Qu- al	MDC 4.55E-0	Yi	acer eld	Spk Conc/ %Rec	Analy Method SRISO_SEP_	Aliq Size/ P 1.0086E+00 L	Date/Time Analyzed 06/10/2007 11:13	RPD/ UCL 12.9 20.0	RER/ UCL 1.4	LCS LCL/UC	R L Typ D

Thursday, July	05, 2007	•			ST	L Rich	land	QC :	Duplica:	te Report			La	b Code:	STLRL	
Form	lbr: R	F	ormat1	ype: FEAD		VersionNbr	: 05		File Name	: h:\Reportdb\edd\f	FeadIV\Rad\W0516	61.Edd, h:\Rep	ortdb/edd\	\FeadIV\	Rad\35799).Edd
Lab Samp	ole Id:	JVXHJ3CF	}		s	dg/Rept	Nbr:	W051	61 3	35799	Collec	tion Date:	04/25/	2007 1	1:57	
Client Id:		B1MDW6			N	latrix:		WATE	ER \	WATER	Samp	le On Date:				
Moisture/	Solids%	*:			C	QC Type:		DUP			Receiv	ed Date:	04/25/	2007		
SAF Nbr S07-003		tract Nbr -SBB-A19981	-	Test User	Case	Nbr S	AS Nbi	7	Suffix	Decant	Distilled Volume	Fil	e ld		FSuffix BV	RTyp H
	alyt/ AS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC		acer eld	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/U	R CL Typ
7159349 H-3 DUP 1002	8-17-8	1.78E+02 1.64E+02	pCi/L.	3.3E+01 1.1E+01		5.43E+00	100.	.0		TRITIUM_ELE	E 1.50E-01 L	06/30/2007 04:27	8.4 20.0	0.6 3		D

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Thursda	y, Jul y 05, 2	2007			ST	L Rich	land (QC Duplica	ate Report			Lat	Code:	STLRL	
	FormNbr:	R	FormatT	ype: FEAD		VersionNbr	: 05	File Nam	ne: h:\Reportdb\edd\	FeadIV\Rad\W0516	61.Edd, h:\Repo	ortdb\edd\f	=eadIV\f	Rad\35799.F	Edd
Clie	Sample Id	B1MRL9	₹		i	Sdg/Rept Matrix:	٧	V05161 VATER	35799 WATER	Samp	tion Date: le On Date:):45	
Mois	sture/Solid	ls%*:			(QC Type:	C	OUP		Recei	ved Date:	04/25/2	2007		
SAF S07-0	- -	Contract Nbr W6-SBB-A19981	7	Test User	Case	Nbr S	AS Nbr	Suffix	Decant	Distilled Volume	File	e ld		FSuffix R'	Тур Н
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Trace Yield		d Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R . Typ
7121263 DUP	U-234 13966-29-	1.49E-01 5 3.34E-02	pCi/L	1.4E-01 1.4E-01		1.48E-01	98.4		UISO_PLATE	2.001E-01 L	05/24/2007 16:08	126.6 20.0	1.2 3		D
7121263 DUP	U-235 15117-96-	0.00E+00 1 0.00E+00	pCi/L	6.3E-02 6.3E-02	U	1.48E-01	98.4		UISO_PLATE	E_ 2.001E-01 L	05/24/2007 16:08	0.0 20.0	0. 3		D
7121263 DUP	U-238 U-238	7.43E-02 3.34E-02	pCi/L	1.1E-01 1.1E-01	U	1.95E-01	98.4		UISO_PLATE	2.001E-01 L	05/24/2007 16:08	75.9 20.0	0.5 3		D

Thursday, July 05, 2007 STL Richland QC Duplicate Report Lab Code: STLRL FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05161.Edd, h:\Reportdb\edd\FeadIV\Rad\35799.Edd JVXPL1LR Lab Sample Id: Sda/Rept Nbr: W05161 35799 Collection Date: 04/25/2007 10:45 B1MRL9 Client Id: Matrix: WATER **WATER** Sample On Date: Moisture/Solids%*: **DUP** QC Type: Received Date: 04/25/2007 SAF Nbr Contract Nbr Test User Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp S07-004 MW6-SBB-A19981 BY Н Batch #/ Analyt/ Result/ Tot/Cnt Qu-Tracer Spk Conc/ Analy Aliq Date/Time RPD/ RER/ LCS R CAS# Qc Type Orig Rst Unit Uncert 2S MDC al Yield %Rec Method Size/ LCL/UCL Typ Analyzed UCL UCL 7163192 BE-7 6.78E+00 pCi/L 3.1E+01 5.91E+01 GAMMALL GS 1.9324E+00 06/14/2007 165.3 0.3 D DUP 13966-02-4 6.45E-01 3.1E+01 05:44 20.0 3 7163192 CO-60 1.11E+00 pCi/L 3.3E+00 U 6.53E+00 GAMMALL GS 1.9324E+00 06/14/2007 623.2 0.7 D DUP 10198-40-0 -5.70E-01 3.3E+00 05:44 20.0 3 7163192 CS-134 3.08E-01 pCi/L 2.3E+00 4.48E+00 GAMMALL GS 1.9324E+00 06/14/2007 276.6 0.2 D DUP 13967-70-9 -4.95E-02 2.3E+00 05:44 20.0 3 7163192 CS-137 1.06E+00 pCi/L 2.3E+00 4.57E+00 GAMMALL GS 1.9324E+00 06/14/2007 191.0 0.6 D DUP 10045-97-3 2.43E-02 2.3E+00 05:44 20.0 3 7163192 EU-152 5.24E-02 pCi/L 5.9E+00 1.05E+01 GAMMALL GS 1.9324E+00 06/14/2007 194.6 0.9 D DUP 14683-23-9 3.85E+00 5.9E+00 05:44 20.0 3 7163192 EU-154 -3.01E+00 pCi/L 8.5E+00 U 1.52E+01 GAMMALL GS 1.9324E+00 06/14/2007 0.0 0.6 D DUP 15585-10-1 3.21E-01 8.5E+00 05:44 20.0 3 7163192 EU-155 -4.41E+00 pCi/L 4.1E+00 U 6.47E+00 GAMMALL GS 1.9324E+00 06/14/2007 0.0 1.3 D DUP 14391-16-3 -5.69E-01 4.1E+00 05:44 20.0 3 7163192 K-40 -2.17E+01 pCi/L 5.1E+01 1.12E+02 GAMMALL GS 1,9324E+00 06/14/2007 0.0 0.9 D DUP 13966-00-2 1.08E+01 5.1E+01 05:44 20.0 3 7163192 RU-106 7.44E+00 pCi/L 2.4E+01 U 4.49E+01 GAMMALL GS 1.9324E+00 06/14/2007 1524.9 0.8 D DUP 13967-48-1 -5.72E+00 2.4E+01 05:44 20.0 3 7163192 SB-125 5.05E-01 5.7E+00

DUP

14234-35-6

GAMMALL GS 1.9324E+00 06/14/2007

46.7

20.0

05:44

0.1

3

pCi/L

5.7E+00

8.13E-01

U

1.04E+01

D

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Thursday	y, July 05, 2007	,			ST	L Rich	land	QC I	Duplicat	te Report			La	b Code:	STLRL	-
	FormNbr: R	F	ormatT	ype: FEAD		VersionNbr	: 05		File Name	: h:\Reportdb\edd\F	FeadIV\Rad\W0516	61.Edd, h:\Repo	ortdb/edd	\FeadIV\	Rad\3579	9.Edd
Lab	Sample Id:	JVXPL2KR			5	Sdg/Rept	Nbr:	W051	61 3	5799	Collec	tion Date:	04/25/	2007 1	0:45	
Clier	nt ld:	B1MRL9			N	Matrix:		WATE	R V	VATER	Samp	le On Date:				
Mois	sture/Solids%	*:			C	QC Type:		DUP			Recei	ved Date:	04/25/	2007		
SAF I		ntract Nbr -SBB-A19981	7	est User	Case	Nbr S	AS Nbr		Suffix	Decant	Distilled Volume	File	e Id		FSuffix BZ	RTyp H
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Yie	ıçer eld	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/U	R CL Typ
7151397 DUP	TC-99 14133-76-7	2.29E+00 1.54E+00	pCi/L	6.1E+00 4.2E+00	U	9.95E+00	100.	0		TC99_ETVDS	SK 1.264E-01 L	06/02/2007 03:55	39.3 20.0	0.2 3		D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

	y, July 05, 200		ormat	Type: FEAD		L Ric		QC	-	te Report : h:\Reportdb\edd	\FeadIV\Rad\W051	61.Edd, h:\Rep		ub Code: \FeadIV\I		.Edd
Clier	Sample Id: nt Id: sture/Solids?	JVXQR1HI B1MRM0 4*:	₹		ħ	Sdg/Re _l Matrix: QC Typ		W05° WATI		5799 VATER	Samp	ction Date: ble On Date: ved Date:		2007 09	9:00	<u></u>
SAF I S07-0		ntract Nbr 6-SBB-A19981	•	Test User	Case	Nbr	SAS Nb	•	Suffix	Decant	Distilled Volume	Fil	e Id		FSuffix F	R Typ H
Batch # / Qc Type 7121268 DUP	Analyt/ CAS# Uranium 7440-61-1	Result/ Orig Rst 0.00E+00 0.00E+00	U nit ug/L	Tot/Cnt Uncert 2S 0.0E+00 0.0E+00	Qu- al U	MDC 2.10E-(Yi	acer eld	Spk Conc/ %Rec	Analy Method UTOT_KPA	Aliq Size/ 2.73E-02 ML	Date/Time Analyzed 06/08/2007 12:08	RPD/ UCL 0.0 20.0	RER/ UCL 0.2	LCS LCL/UC	R L Ty _l D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Thursday, July 05, 2007 STL Richland OC Duplicate Report Lab Code: STLRL FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\V\Rad\W05161.Edd, h:\Reportdb\edd\Fead\V\Rad\35799.Edd Lab Sample Id: JVXQR1KR Sdg/Rept Nbr: W05161 35799 Collection Date: 04/25/2007 09:00 Client Id: B1MRM0 Matrix: WATER **WATER** Sample On Date: Moisture/Solids%*: QC Type: **DUP Received Date:** 04/25/2007 SAF Nbr **Contract Nbr** Test User Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp S07-004 MW6-SBB-A19981 CB Н Batch # / Result/ Analyt/ Tot/Cnt Qu-Spk Conc/ Tracer Analy Aliq Date/Time RPD/ RER/ LCS R Qc Type CAS# Orig Rst Unit **Uncert 2S** MDC al Yield %Rec Method Size/ Analyzed UCL UCL LCL/UCL Typ 7121275 1-129L -9.85E-02 pCi/L 1.3E-01 U 2.22E-01 98.4 1129LL SEP L 3.9379E+00 06/06/2007 0.0 1.3 D DUP 15046-84-1 1.97E-02 1.3E-01 20:18 20.0 3

Thursday, July 05, 2007 STL Richland QC Duplicate Report Lab Code: STLRL FormNbr: R FormatType: FEAD File Name: h:\Reportdb\edd\FeadIV\Rad\W05161.Edd, h:\Reportdb\edd\FeadIV\Rad\35799.Edd VersionNbr: 05 Lab Sample Id: JVXV01ER Sdg/Rept Nbr: W05161 35799 Collection Date: 04/26/2007 08:52 Client Id: B1MDP3 WATER Matrix: **WATER** Sample On Date: Moisture/Solids%*: QC Type: DUP Received Date: 04/26/2007 SAF Nor Contract Nbr **Test User** Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp S07-003 MW6-SBB-A19981 CD Н Batch # / Analyt/ Result/ Tot/Cnt Qu-Spk Conc/ Tracer Analy Aliq Date/Time RPD/ RER/ LCS R Qc Type **Orig Rst** CAS# Uncert 2S Unit al MDC %Rec Yield Method Size/ UÇL UCL Analyzed LCL/UCL Typ 7121276 H-3 2.92E+05 pCi/L 1.1E+04 3.16E+02 100.0 5.00E-03 906.0 H3 LSC 05/22/2007 4.3 1.7 D DUP 10028-17-8 3.04E+05 1.8E+03 17:16 20.0 3

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Thursday, Ju	ıly 05, 2007				ST	L Richl	and	QC 1	Duplicat	te Report			La	b Code:	STLRL	
Forn	mNbr: R	F	ormatT	ype: FEAD		VersionNbr:	: 05		File Name	: h:\Reportdb\edd\F	eadIV\Rad\W051	61.Edd, h:\Repo	ortdb\edd	\FeadIV\	Rad\35799	3.Edd
Lab San	nple Id:	JVXV61ER			s	idg/Rept I	Nbr:	W051	61 3	5799	Collec	ction Date:	04/26/	2007 0	9:42	
Client lo	i:	B1MDP5			N	latrix:		WATE	R v	VATER	Samp	le On Date:				
Moistur	e/Solids%	*:			C	C Type:		DUP			Recei	ved Date:	04/26/	2007		
SAF Nbr S07-003		tract Nbr -SBB-A19981	1	est User	Case	Nbr SA	AS Nbr		Suffix	Decant	Distilled Volume	File	e Id		FSuffix CE	RTyp H
Qc Type	Analyt/ CAS# PHA	Result/ Orig Rst 2.14E+00	Unit pCi/L	Tot/Cnt Uncert 2S 1.5E+00	Qu- al	MDC 1.60E+00	Yie		Spk Conc/ %Rec	Analy Method	Aliq Size/ B 1.984E-01	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/U(R CL Typ
· · - · · · -	587-46-1	2.40E+00	PORE	1.4E+00		1.00=+00	100.	u		9310_ALPHAI	1.904E-01 L	06/08/2007 14:15	11.6 20.0	0.3 3		D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Thursda	y, July 05, 20	07			ST	L Richl	and	QC I	Ouplicat	te Report			La	ab Code:	STLRL	
	FormNbr: R	F	ormatT	ype: FEAD		VersionNbr:	05		File Name	: h:\Reportdb\edd\F	eadIV\Rad\W051	61.Edd, h:\Repo	ortdb\edd	\FeadIV\	Rad\35799	.Edd
Clie	Sample Id: nt Id: sture/Solids	JVXWF1EF B1MDP7 %*:	3		N	6dg/Rept I Matrix: QC Type:		W0516 WATE DUP	_	85799 WATER	Samp	ction Date: ble On Date: ved Date:		2007 0 2007	9:17	
SAF S07-0		ontract Nbr /6-SBB-A19981	7	est User	Case	Nbr SA	S Nbr		Suffix	Decant	Distilled Volume	File	e ld		FSuffix CF	R Typ H
Batch # / Qc Type 7121267 DUP	Analyt/ CAS# BETA 12587-47-2	Result/ Orig Rst 2.02E+01 2.06E+01	Unit pCi/L.	Tot/Cnt Uncert 2S 3.6E+00 2.5E+00	Qu- al	MDC 2.95E+00	Trac Yie 100.0	eld	Spk Conc/ %Rec	Analy Method 9310_ALPHA	Aliq Size/ B 1.889E-01 L	Date/Time Analyzed 06/08/2007 13:35	RPD/ UCL 2.0 20.0	RER/ UCL 0.2 3	LCS LCL/UC	R SL Typ D

Thursda	y, July 05, 20	107			STL I	Richland	Qc I	Matrix Spi	ke Report			La	ıb Code:	STLRL	
	FormNbr: R		-ormat1	Type: FEAD	Ve	ersionNbr: 0	5	File Name	h:\Reportdb\edd	\FeadIV\Rad\W051	61.Edd, h:\Rep	ortdb\edd	\FeadIV\	Rad\3579	9.Edd
Clie	Sample Id: nt Id: sture/Solids	B1MRL9	V		Ма	g/Rept Nbr trix: Type:		TER V	5799 VATER	Samp	ction Date: le On Date: ved Date:	04/25/ 04/25/		0:45	
SAF S07-0		ontract Nbr V6-SBB-A19981	-	Test User	Case N	br SAS N	br	Suffix	Decant	Distilled Volume	File	e Id		FSuffix BX	RTyp H
Batch # / Qc Type 7121268 MS	Analyt/ CAS# Uranium 7440-61-1	Result/ Orig Rst 3.77E+01	Unit ug/L	Tot/Cnt Uncert 2S 4.5E+00 4.5E+00	Qu- al 8		racer Yield	Spk Conc/ %Rec 3.66E+01 102.9	Analy Method UTOT_KPA	Aliq Size <i>i</i> 2.47E-02 ML	Date/Time Analyzed 06/08/2007 11:20	RPD/ UCL	RER/ UCL	LCS LCL/U 60 140	R CL Typ D

34

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide. J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL). B Qual - Analyte was found in the associated laboratory blank above the MDC.

Thursday, July 05, 2007 STL Richland Qc Matrix Spike Report Lab Code: STLRL FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05161.Edd, h:\Reportdb\edd\FeadIV\Rad\35799.Edd Lab Sample Id: JVXQR2JW Sdg/Rept Nbr: W05161 35799 Collection Date: 04/25/2007 09:00 Client Id: B1MRM0 Matrix: WATER WATER Sample On Date: Moisture/Solids%*: QC Type: MS Received Date: 04/25/2007 SAF Nbr Contract Nbr **Test User** Case Nbr SAS Nor Suffix Decant **Distilled Volume** File Id FSuffix RTyp S07-004 MW6-SBB-A19981 CC Н Batch #/ Analyt/ Result/ Tot/Cnt Qu-Tracer Spk Conc/ Analy Aliq Date/Time RPD/ RER/ LCS R Qc Type CAS# Orig Rst Uncert 2S al MDC Yield %Rec Method Size/ Analyzed UCL UCL LCL/UCL Typ 7151397 TC-99 3.49E+03 pCi/L 2.2E+02 1.01E+01 100.0 3.65E+03 TC99 ETVDSK 1.244E-01 06/02/2007 60 D MS 14133-76-7 3.2E+01 95.7 06:00 140

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J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Data Review/Verification Checklist SEVERN STL 5/30/2007 4:23:37 PM RADIOCHEMISTRY, First Level Review Lot No., Due Date: J7D300118; 06/11/2007 Client, Site: 384868; PGW 615HANFORD HANFORD QC Batch No., Method Test: 7121263; RUISO Ulso by ALP SDG, Matrix: W05161; WATER Yeş No N/A 8.0 Correction Calculation Protocol Used. OK Yeş No N/A 8.01 The Appropriate Methods Were Used To Analyze the Samples 8.02 Final Results Are in the Appropriate Activity Units Yeş No N/A 8.03 Batch Contains the Required QC Appropriate for the Method Yeş No N/A Yeş No N/A 8.04 The Correct Tracer and QC Vials Where Used in the Samples Yeş No N/A 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample 8.06 At Least the Minimum Sample Volume Was Used Yes No N/A Yeş No N/A 8.07 The Correct Count Geometry was Used. Yeş No N/A 8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. Yes No N/A 8.09 Method Blank is within Control Limits. OK 8.1 Comments: 8.11 Matrix Blank is within Control Limits. Yes No N/A No Matrix Blanks (MBlks) found in Batch! No N/A 8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). Yes No N/A 8.13 QAS Specified Duplicate Equation Value within Control Limits. Not Compared => JVXPL1AH U-235 (RPD) Yes Noy N/A 8.14 LCS within Control Limits. LCS Exceeds Control Limit => JV1281AC U-235 68 L:70|130 Q:S0 Yes No N/A 8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch! Yes No N/Ax 8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch! Yeş No N/A 8.17 Tracer within Control Limits. 8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No N/A No N/A 8.19 Sample Specific MDC <= CRDL.</p> OK 8.2 Comments: Yes No N/A 8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified! Yeş No N/A 8.22 Result < Mdc, Activity Not Detected, U Flag.</p> No Positive Results OK 8.23 Result <= Action Level, when Defined. Yes No N/A OK; No Action Level Found => U-234 U-235 U-238 OK; No Callin Level Found => U-234 U-235 U-238 No N/A 8.24 Result + 3s >=0, Not Too Negative. OK STL Richland

OAS_RADCALCV4.8.26 STL_RICHLAND Page 1

8.2	5 Counting Spectrum are within FWHM Limits.	Yes	Nov	N/A
ļ	FWHM > maxFWHM => JV1281AC U-234 45.1>0 Q:V1		J	
8.2	6 Instruments have Current Calibrations.	Yes	No	N/A
8.2	7 Correct Count Library Used.	Yes	No	N/A
1	Library Not Specified => JVXPL1AF I:[NUC_LIBR]AR_U. Q:			
	JVXPL1AH I:[NUC_LIBR]AR_U. Q: JVXQR1AF I:[NUC_LIBR]AR_U. Q:			
	JV1281AA I:[NUC_LIBR]AR_U. Q:			
	JV1281AC I:[NUC_LIBR]AR_U. Q:			
8.28	8 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version	ntées	No	N/A
8.29	9 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later v	Meesic	n Neò .	N/A
8.3	Comments:			
8.3	1 Results Blank Subtracted as Appropriate.			
	OK	Yes	No	N/A
		¥		

STL Richland
QAS_RADCALCv4.8.26
STL RICHLAND

Page 2



Review Item	Yes (V)	No.(V)	N/A(V)
A. Sample Analysis	(·/	1210(1)	TOA (V)
. Are the sample yields within acceptance criteria?			
. Is the sample Minimum Detectable Activity < the Contract			
Detection Limit?			
. Are the correct isotopes reported?			-
3. QC Samples		 	
. Is the Minimum Detectable Activity for the blank result ≤ the			
Contract Detection Limit?			
. Does the blank result meet the Contract criteria?			
. Is the blank result < the Contract Detection Limit?	1 23		
, Is the blank result > the Contract Detection Limit but the sample			
esun < the Contract Detection Limit?	-		
. Is the LCS recovery with contract acceptance criteria?			
. Is the LCS Minimum Detectable Activity ≤ the Contract Detection			
TITLE (
. Do the MS/MSD results and yields meet acceptance criteria?			
. Do the duplicate sample results and yields meet acceptance			
C. Other			
	•		
Are all Nonconformances included and noted?			
Are all required forms filled out?			
. Was the correct methodology used?			
Was transcription checked?			-
Were all calculations checked at a minimum frequency?			
. Were units checked?			· · · · · · · · · · · · · · · · · · ·

Data Review/Verification Checklist SEVERN 6/11/2007 10:51:00 AM STL RADIOCHEMISTRY, First Level Review Lot No., Due Date: J7D300138; 06/11/2007 Client, Site: 384868; PGW 615HANFORD HANFORD QC Batch No., Method Test: 7121266; RALPHA-A Alpha by GPC-Am SDG, Matrix: W05161; WATER 8.0 Correction Calculation Protocol Used. Yes No N/A OK 8.01 The Appropriate Methods Were Used To Analyze the Samples Yeşr No N/A OK 8.02 Final Results Are in the Appropriate Activity Units No N/A Yeş∕ 8.03 Batch Contains the Required QC Appropriate for the Method No N/A Yeşr 8.04 The Correct Tracer and QC Vials Where Used in the Samples No N/A Yeş 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample No N/A Yes OK 8.06 At Least the Minimum Sample Volume Was Used Yes No N/A Analysis Volume => JVXV01AC 186.20<200.00 JVXWH1AC 173.20<200.00 Q:VB 8.07 The Correct Count Geometry was Used. Yes∕ No N/A 8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. No N/A Yeşr 8.09 Method Blank is within Control Limits. No N/A OK 8.1 Comments: 8.11 Matrix Blank is within Control Limits. Yes No N/A No Matrix Blanks (MBlks) found in Batch! 8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). No N/A Yes 8.13 QAS Specified Duplicate Equation Value within Control Limits. Yeş No N/A OK (RPD) 8.14 LCS within Control Limits. No N/A 8.15 MLCS within Control Limits. Yes No N/A No Matrix Spikes (MLCS) found in Batch! 8.16 MS within Control Limits. Yes No N/A No Matrix Spike Samples (MS) found in Batch! 8.17 Tracer within Control Limits. No N/A OK 8.18 Samples are above Minimum Tracer Yield (No Failed Samples) Yes No N/A OK 8.19 Sample Specific MDC <= CRDL. No N/A Yes OK 8.2 Comments: 8.21 Result < Lc, Activity Not Detected, U Flag. Yes No N/A No Limit Specified! 8.22 Result < Mdc, Activity Not Detected, U Flag. Yes Nov N/A Batch Positive Result => JVXV61AC ALPHA 2.4E+00 L:1.8E+00 JVXWF1AC ALPHA 7.2E+00 L:2.0E+00 JVXWH1AC ALPHA 5.4E+00 L:2.0E+00 8.23 Result <= Action Level, when Defined. No N/A OK; No Action Level Found => ALPHA OK; No Callin Level Found => ALPHA 8.24 Result + 3s >=0, Not Too Negative. No N/A OK STL Richland Page 1

QAS_RADCALCV4.8.26 STL RICHLAND

Counting Spectrum are within FWHM Limits.	Yes	Nο	N/
No FWHM found in Batch Data!	100		V
Instruments have Current Calibrations.	Yes	No	N//
Correct Count Library Used.	Yes	Nο	NZ
No Count Library found in Batch Data!			
Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be			
Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version.	「o be developed in later v¥esi or	NEÒ.	N/
Comments:			
Results Blank Subtracted as Appropriate.	Yeş 1	No	N/
ок	V		

STL Richland
QAS_RADCALCv4.8.26
STL RICHLAND

Date

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Page 2

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Review Item	Yes (V)	No (V)	N/A(V)
A. Sample Analysis		1.0(1)	14/77 (4)
. Are the sample yields within acceptance criteria?		ļ	
. Is the sample Minimum Detectable Activity < the Contract		 	
etection Limit?			.
. Are the correct isotopes reported?		-	
. QC Samples			
. Is the Minimum Detectable Activity for the blank result ≤ the			
Longact Detection Limit?			
. Does the blank result meet the Contract criteria?		 	
. Is the blank result < the Contract Detection Limit?		-	
, Is the blank result > the Contract Detection Limit but the sample			
sult < the Contract Detection Limit?]		
. Is the LCS recovery with contract acceptance criteria?			
. Is the LCS Minimum Detectable Activity \(\leftarrow\) the Contract Detection	 		
umit?			
. Do the MS/MSD results and yields meet acceptance criteria?		 	
. Do the duplicate sample results and yields meet acceptance			
itena?			1
. Other ·	T .	 	· · · · · · · · · · · · · · · · · · ·
Are all Nonconformances included and noted?			
. Are all required forms filled out?		 	
. Was the correct methodology used?		 	
. Was franscription checked?		1	
. Were all calculations checked at a minimum frequency?		<u> </u>	
Were units checked?	1	 	
omments on any "No" response:			
		·	

SEVERN Data Review/Verification Checklist STL 6/11/2007 10:54:57 AM REPORT OF THE PARTY OF THE PART RADIOCHEMISTRY, First Level Review Lot No., Due Date: J7D300138; 06/11/2007 Client, Site: 384868; PGW 615HANFORD HANFORD QC Batch No., Method Test: 7121267; RBETA-SR Beta by GPC-Sr/Y SDG, Matrix: W05161; WATER 8.0 Correction Calculation Protocol Used. No N/A 8.01 The Appropriate Methods Were Used To Analyze the Samples Yeş No N/A 8.02 Final Results Are in the Appropriate Activity Units Yes No N/A 8.03 Batch Contains the Required QC Appropriate for the Method Yeş No N/A 8.04 The Correct Tracer and QC Vials Where Used in the Samples Yeş No N/A OK 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample Yeş No N/A 8.06 At Least the Minimum Sample Volume Was Used Yes Noy N/A Analysis Volume => JVXV01AD 185.60<200.00 JVXWF1AD 188.20<200.00 JVXWH1AD 168.90<200.00 Q:VB 8.07 The Correct Count Geometry was Used. Yea No N/A OK 8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. Yeş No N/A 8.09 Method Blank is within Control Limits. No N/A OK 8.1 Comments: 8.11 Matrix Blank is within Control Limits. Yes No N/A No Matrix Blanks (MBlks) found in Batch! 8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary).</p> No N/A 8.13 QAS Specified Duplicate Equation Value within Control Limits. Yeş No N/A OK (RPD) 8.14 LCS within Control Limits. Yeşr No N/A OK 8.15 MLCS within Control Limits. Yes No N/A No Matrix Spikes (MLCS) found in Batch! 8.16 MS within Control Limits. Yes No N/A No Matrix Spike Samples (MS) found in Batch! 8.17 Tracer within Control Limits. No N/A 8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No N/A 8.19 Sample Specific MDC <= CRDL Yeş/No N/A OK 8.2 Comments: 8.21 Result < Lc, Activity Not Detected, U Flag. Yes No N/A No Limit Specified! 8.22 Result < Mdc, Activity Not Detected, U Flag. Yes No N/A Batch Positive Result => JVXV01AD BETA 6.3E+01 L:3.3E+00 JVXV61AD BETA 1.0E+01 L:2.8E+00 JVXWF1AD BETA 2.1E+01 L:3.0E+00 JVXWH1AD BETA 2.4E+01 L:3.3E+00 8.23 Result <= Action Level, when Defined. No N/A OK; No Action Level Found => BETA OK; No Callin Level Found => BETA STL Richland Page 1 QAS_RADCALCv4.8.26

STL RICHLAND

.24 Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A
.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A
.26 Instruments have Current Calibrations.	Yes	No	N/A
.27 Correct Count Library Used. No Count Library found in Batch Data!			N/A
28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be d			
29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To	o be developed in later v ¥es io	DI NEÒ .	N/A
3 Comments:			
31 Results Blank Subtracted as Appropriate. OK	Yes	No	N/A

STL Richland

QAS_RADCALCV4.8.26 STL RICHLAND Date

Page 2

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A. Sample Analysis 1. Are the sample yields within acceptance criteria? 2. Is the sample Minimum Detectable Activity < the Contract Detection Limit? 3. Are the correct isotopes reported? B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?	Yes (V)	No (√)	N/A (√)
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit? 3. Are the correct isotopes reported? B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit? 3. Are the correct isotopes reported? B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			
Detection Limit? 3. Are the correct isotopes reported? B. QC Samples 1. Is the Minimum Detectable Activity for the blank result \(\leq \) the Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result \(\leq \) the Contract Detection Limit? 4. Is the blank result \(\leq \) the Contract Detection Limit but the sample result \(\leq \) the Contract Detection Limit?			
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			
 Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? Does the blank result meet the Contract criteria? Is the blank result < the Contract Detection Limit? Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? 			
2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			1
2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?		1	}
3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?		1	
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			1
resuit < the Contract Detection Limit?	/.		1
resuit < the Contract Detection Limit?			
F T 4 T 00			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			
			1
8. Do the MS/MSD results and yields meet acceptance criteria?			
9. Do the duplicate sample results and yields meet acceptance criteria?			
C. Other			1
•	•		
1. Are all Nonconformances included and noted? 2. Are all required forms filled out?			
3. Was the correct methodology used?			
4. Was transcription checked?			
S. Were all calculations checked at a minimum frequency?			
6. Were units checked?			
7. Hoto aims checken;	/_		•

	EVERN RENT	STL	Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review	6/11/2007 10:	:06:3	2 AM
Lot	No., Due	Date:	J7D250210,J7D300118; 06/11/2007	Contract and the second second second property of the second	**************************************	
Clie	nt, Site:		384868; PGW 615HANFORD HANFORD			
QC	Batch No	., Method Te	st: 7121271; RSR85907 Sr-85/90 by GPC-7			
SDC	G, Matrix:		W05161; WATER			
1.0 1.1	COC Is the ICOC	C page complete	ə; includes all applicable analysis, dates, SOP numbers, and revisions?	Yeş	No	N/A
2.0 2.1	QC Batch Do the Sun	1 nmary/Detailed	Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yeş	No	N/A
2.2	Are the QC	appropriate for	the analysis included in the batch?	Yeş	No	N/A
2.3	is the Analy	ytical Batch Wo	rksheet complete; includes as appropriate, volumes, count times, etc?	Yeş	No	N/A
2.4	Does the W	Vorksheets inclu	de a Tracer Vial label for each sample?	Yeş	No	N/A
3.0 3.1	QC & Sar	nples cresults, yield, a	and MDA within contract limits?	Yeş	No	N/A
3.2 1	s the LCS	result, yield, an	d MDA within contract limits?	Yeş	No	N/A
3.3 /	Are the MS	/MSD results, y	elds, and MDA within contract limits?	√ Yes	No	N/A
3.4 A	Are the dup	olicate result, yie	elds, and MDAs within contract limits?	Yeş	No	N/A
3.5	Are the san	nple yields and	MDAs within contract limits?	√ Yeş	No	N/A
4.0 4.1 \	Raw Data Were result	ts calculated in	the correct units?	Yea	No	N/A
4.2 \	Nere analy	sis volumes en	ered correctly?	↓ Yeş	No	N/A
4.3 V	Were Yield:	s entered correc	otly?	√ Yeş	No	N/A
4.4 V	Nere spect	ra reviewed/me	et contractual requirements?	Yeş	No	N/A
4.5 V	Vere raw c	ounts reviewed	for anomalies?	Yeş	No	N/A
	Other \re all nond	conformances in	Cluded and noted?	∀ Yes	No	N/A
5.2 A	re all requ	ired forms filled	out?	Yeş	No	N/A
5.3 V	Vas the co	rrect methodolo	gy used?	Yeş	No	N/A
5.4 V	Vas transci	ription checked	•	∀ Yeş	No	N/A
5.5 V	Vere all cal	culations check	ed at a minimum frequency?	V Yeşv	No	N/A
5.6 A	re workshe	et entries com	plete and correct?	Yeş	No	N/A
6.0 C	Comments	on any No respo	onse:	V		
	Level Re	view Jalu	1 1/10 Date G11-	7		
	RADCALCv4	1.8.26		Page	1	

STL RICHLAND



3. Was the correct methodology used? 4. Was transcription checked?

6. Were units checked?

5. Were all calculations checked at a minimum frequency?

Data Review Checklist RADIOCHEMISTRY Second Level Review

OC Batch Number: 7/2/27/ 11/05/4/		•	
W05141.	,		
Review Item	Yes (V)	No(V)	N/A (1)
A. Sample Analysis		1	1 2 1 1 1
1. Are the sample yields within acceptance criteria?			-
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?			
3. Are the correct isotopes reported?	:		
B. QC Samples		 	
 Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? 			
2. Does the blank result meet the Contract criteria?	+		
3. Is the blank result < the Contract Detection Limit?	1		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			1
5. Is the LCS recovery with contract acceptance criteria?	+		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			+
9. Do the duplicate sample results and yields meet acceptance criteria?			
C. Other	1	 	
1. Are all Nonconformances included and noted?			
2. Are all required forms filled out?	+	 	

Comments on any "No" response:	•				
		***************************************	***		,
				,	
		. •••.			

Second Level Review Harry Clam Date: 6-11-07

SEVERN Data Review/Verification Checklist STI 6/14/2007 1:53:06 PM 19:1/20:4/10 RADIOCHEMISTRY, First Level Review Lot No.. Due Date: J7D250210,J7D300118; 06/11/2007 Client, Site: 384868; PGW 615HANFORD HANFORD QC Batch No., Method Test: 7163192; RGAMMA Gamma by GER SDG, Matrix: W05161; WATER 1.0 COC 1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yesr No N/A 2.0 QC Batch 2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yeş No N/A 2.2 Are the QC appropriate for the analysis included in the batch? No N/A 2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yeşr No N/A 2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A 3.0 QC & Samples 3.1 Is the blank results, yield, and MDA within contract limits? Yeş No N/A 3.2 Is the LCS result, yield, and MDA within contract limits? Yeş No N/A 3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A 3.4 Are the duplicate result, yields, and MDAs within contract limits? Yeş No N/A 3.5 Are the sample yields and MDAs within contract limits? Yes No N/A 4.0 Raw Data 4.1 Were results calculated in the correct units? Yes No N/A 4.2 Were analysis volumes entered correctly? Yes No N/A 4.3 Were Yields entered correctly? Yes No N/A 4.4 Were spectra reviewed/meet contractual requirements? Yeş No N/A 4.5 Were raw counts reviewed for anomalies? Yeşi No N/A 5.1 Are all nonconformances included and noted? Yeş∕NoN/A

5.0 Other

5.2 Are all required forms filled out?

5.3 Was the correct methodology used?

5.4 Was transcription checked?

5.5 Were all calculations checked at a minimum frequency?

5.6 Are worksheet entries complete and correct?

6.0 Comments on any No response: NCM 10-10108

First Level Review

STL Richland QAS_RADCALCv4.8.26 STIL RICHTAND Date

Page 1

Yeş No N/A

Yeş No N/A

Yeş No N/A

Yes No N/A

Yeşr No N/A



Review Item	Yes (√)	No.(V)	NI/A (-/)
A. Sample Analysis	1203(1)	110(1)	$N/A(\sqrt{)}$
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract	 		
Detection Limit?			.
3. Are the correct isotopes reported?			
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the			
Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?			
3. Is the blank result < the Contract Detection Limit?	1		
4, Is the blank result > the Contract Detection Limit but the sample			
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			
9. Do the duplicate sample results and yields meet acceptance			
C. Other			
1. Are all Nonconformances included and noted?			
2. Are all required forms filled out?			
3. Was the correct methodology used?			
4. Was transcription checked?			
Were all calculations checked at a minimum frequency?			
5. Were units checked?			
Comments on any "No" response: See MCM		77/200409944	
		<u> </u>	

Clouseau Nonconformance Memo

SIL

NCM #: 10-10108

NCM Initiated By: Lisa Antonson

Date Opened: 06/14/2007

Date Closed:

Classification: Anomaly

Status: GLREVIEW

Production Area: Environmental - Prep

Tests: Gamma by GER

Lot #'s (Sample #'s): J7D250210 (2), J7D300118

(4,5), J7F120000 (192),

QC Batches: 7163192,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name Lisa Antonson <u>Date</u> 06/14/2007

Description

This Gamma batch is a rerun of 7121272 due to low LCS recovery. The samples

were rerun with accpetable results.

There was not enough volume for a dup on the rerun so the sample was recounted

on a different detector.

Data accepted.

Corrective Action

Name

Lisa Antonson

<u>Date</u> 06/14/2007

Corrective Action

DO7 The samples were rerun

Client Notification Summary

Client

Project Manager

Notified

Response How Notified

Note

Response

Response Note

Quality Assurance Verification

Verified By

Due Date

<u>Status</u>

Notes

This section not yet completed by QA.

Approval History

Date Approved

Approved By

Position

Date Printed: 6/14/2007

Page 1 of 1

SEVERN STL	Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review	6/11/2007 2:	34:3	2 PM
Lot No., Due Date:	J7D300118; 06/11/2007		***********	***************************************
Client, Site:	384868; PGW 615HANFORD HANFORD			
ł.	est: 7121275; RGAMLEPS Gamma by LEPS			
SDG, Matrix:	W05161; WATER			
	ete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes	y No	N/A
2.0 QC Batch 2.1 Do the Summary/Detailed	d Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yeş	n No	N/A
	or the analysis included in the batch?	V	. No	N/A
2.3 Is the Analytical Batch W	orksheet complete; includes as appropriate, volumes, count times, etc?	Yes	No	N/A
2.4 Does the Worksheets inc	lude a Tracer Vial label for each sample?	Yes		N/A
3.0 QC & Samples 3.1 Is the blank results, yield,	and MDA within contract limits?			
		Yes	No	N/A
	nd MDA within contract limits?	Yes	No	N/A
3.3 Are the MS/MSD results, y	yields, and MDA within contract limits?	Yes	No	N/A
3.4 Are the duplicate result, yi	ields, and MDAs within contract limits?	Yeş	No	N/A
3.5 Are the sample yields and	MDAs within contract limits?	V		N/A
1.0 Raw Data 1.1 Were results calculated in	the correct units?	~		N/A
I.2 Were analysis volumes er	ntered correctly?	V	140	11/74
.3 Were Yields entered corre		V		N/A
.4 Were spectra reviewed/me	Pet contractual requirements?	Yes	140	V
		Yes	No	N/A
.5 Were raw counts reviewed	for anomalies?	Yes	No	N/A
.0 Other.1 Are all nonconformances in	ncluded and noted?	Yes	Nο	N/A
.2 Are all required forms filled	i out?	.,		V
3 Was the correct methodolo		Yes		
4 Was transcription checked		Yes		
·		Yes	No	N/A
5 Were all calculations check	·	Yea	No	N/A
6 Are worksheet entries com	nplete and correct?	Yes	No	N/A
0 Comments on any No resp	onse:	*		

Date

STL Richland QAS RADCALCv4.8.26



OC Batch Number:	712 1275
·	W05161

A. Sample Analysis	Yes (V)	No (V)	1370 (1)
	123(1)	140(4)	N/A(V)
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract			
Detection Limit?			.
3. Are the correct isotopes reported?		<u> </u>	
B. QC Samples			
I. Is the Minimum Detectable Activity for the blank result ≤ the			
Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?	+		
3. Is the blank result < the Contract Detection Limit?		-	
4. Is the blank result > the Contract Detection Limit but the carmle	<u> </u>		
esun < me Contract Detection Limit?			
. Is the LCS recovery with contract acceptance criteria?			1
1. Is the LCS Minimum Detectable Activity < the Contract Detection	+		
Lunt:			
3. Do the MS/MSD results and yields meet acceptance criteria?	-		
s. Do the supplicate sample results and yields meet accentance		-	<u>-</u>
niena?			1
C. Other			 -,
. Are all Nonconformances included and noted?			
. Are all required forms filled out?	+		
. Was the correct methodology used?	+		
. Was transcription checked?	 		
	 	-	
. Were all calculations checked at a minimum frequency? . Were units checked?		1	

				i .
4. Was transcription checked?				
5. Were all calculations checked at a minimum frequency?				•
6. Were units checked?				
Comments on any "No" response:				
To response.				
				<u>·</u>
	1			
Second Level Review Mirry a Cla	11			
DOCUME TO ACT VEALENCE MENTINGE (il .	D-4	1 11 11.	,,

SEVERN Data Review/Verification Checklist STL TRENT 6/4/2007 1:24:44 PM RADIOCHEMISTRY, First Level Review Lot No., Due Date: J7D300118; 06/11/2007 Client, Site: 384868; PGW 615HANFORD HANFORD QC Batch No., Method Test: 7151397; RTC99 Tc-99 by LSC SDG, Matrix: W05161; WATER 1.0 COC 1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yeş/ No N/A 是严重的表现。2015年,1917年,1913年。 2.0 QC Batch 2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? No N/A 2.2 Are the QC appropriate for the analysis included in the batch? No N/A 2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? No N/A 2.4 Does the Worksheets include a Tracer Vial label for each sample? No N/A 3.0 QC & Samples 3.1 Is the blank results, yield, and MDA within contract limits? Yeş No N/A 3.2 Is the LCS result, yield, and MDA within contract limits? Yeş No N/A 3.3 Are the MS/MSD results, yields, and MDA within contract limits? No N/A 3.4 Are the duplicate result, yields, and MDAs within contract limits? Yeş No N/A 3.5 Are the sample yields and MDAs within contract limits? No N/A 4.0 Raw Data 4.1 Were results calculated in the correct units? Yeş No N/A 4.2 Were analysis volumes entered correctly? No N/A 4.3 Were Yields entered correctly? Yes No N/A [4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A 4.5 Were raw counts reviewed for anomalies? Yeş No N/A 5.0 Other: 10 字句,从是一块的是是在第1公司,是一种是特别的第三人称单数的。 5.1 Are all nonconformances included and noted? No N/A |5.2 Are all required forms filled out? Yeş No N/A 5.3 Was the correct methodology used? Yeş No N/A 5.4 Was transcription checked? Yeş No N/A |5.5 Were all calculations checked at a minimum frequency? Yeş No N/A 5.6 Are worksheet entries complete and correct? No N/A 6.0 Comments on any No response:

STL Richland

QAS_RADCALCv4.8.26 STL RICHLAND

First Level Review

Date 6/4/07



QC Batch Number: 7/5/397

Review Item	Yes (V)	No (V)	N/A(V)
A. Sample Analysis		1.0(1)	- IVA (V)
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract	1		+ -
Detection Limit?			1
3. Are the correct isotopes reported?			+
B. QC Samples	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
1. Is the Minimum Detectable Activity for the blank result ≤ the	1 1/2	1.	
Contract Detection Limit?	1 7		
2. Does the blank result meet the Contract criteria?	1 7/	-	+
3. Is the blank result < the Contract Detection Limit?	1		
Is the blank result > the Contract Detection Limit but the sample		 	 /-
estili < the Contract Detection Limit?	,	1	
. Is the LCS recovery with contract acceptance criteria?	1		
. Is the LCS Minimum Detectable Activity < the Contract Detection		 	
SHITTE:			1
Do the MS/MSD results and yields meet acceptance criteria?	1	 	
. Do the duplicate sample results and yields meet acceptance	-V_	 	
mena!			1
C. Other	V /	 	
. Are all Nonconformances included and noted?			1
Are all required forms filled out?			
. Was the correct methodology used?			
Was transcription checked?	/		
Were all calculations checked at a minimum frequency?	/		
Were units checked?			
	-		<u> </u>
Comments on any "No" response:	110	/	
'		· ·	
•			
,			
\mathcal{C} \mathcal{C}			, ,
econd Level Review: 711 hc		_ Date: L	della

STL RICHLAND

Clouseau Nonconformance Memo

STL

NCM#: 10-10033

NCM Initiated By: Steven Wheland

Date Opened: 06/04/2007

Date Closed:

Classification: Anomaly

Status: GLREVIEW

Production Area: Environmental - Sep

Tests: Tc-99 by LSC

Lot #'s (Sample #'s): J7D300118 (4,5), J7E010000

(270),

QC Batches: 7151397,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

<u>Name</u>

Date

Description

Steven Wheland 06/04/2007

Original count produced tSIE's greater than the upper bound of the quench curve.

Further mixing and a recount produced acceptable data.

Corrective Action

<u>Name</u>

Date

Corrective Action

Steven Wheland

06/04/2007

Report the recount results.

Client Notification Summary

Client

Project Manager

Notified

Response How Notified

Note

Response

Response Note

Quality Assurance Verification

Verified By

Due Date

Status

Notes

This section not yet completed by QA.

Approval History

Date Approved

Approved By

Position

Date Printed: 6/4/2007

SEVERN STL Data Review/Verification Checklist 5/25/2007 4:53:45 PM A REPORT OF RADIOCHEMISTRY, First Level Review Lot No., Due Date: J7D300138; 06/11/2007 Client, Site: 384868; PGW 615HANFORD HANFORD QC Batch No., Method Test: 7121276; RTRITIUM H-3 by LSC SDG, Matrix: W05161; WATER 8.0 Correction Calculation Protocol Used. Yeş No N/A 8.01 The Appropriate Methods Were Used To Analyze the Samples Yes No N/A 8.02 Final Results Are in the Appropriate Activity Units Yeş No N/A OK 8.03 Batch Contains the Required QC Appropriate for the Method Yeşr No N/A OK 8.04 The Correct Tracer and QC Vials Where Used in the Samples No N/A 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample Yes No N/A 8.06 At Least the Minimum Sample Volume Was Used ok AL 5/29/07 ok AL 5/29/07 Yes No N/A Analysis Volume => JVXV01AA 5.00<10.00 JVXV61AA 5.00<10.00 JVXWF1AA 5.00<10.00 JVXWH1AA 5.00<10.00 Q:VB 8.07 The Correct Count Geometry was Used. Yes No N/A Count Geometry => JV1361AF SVP15/5<>SVP10/10 JV1361AG SVP15/5<>SVP10/10 JV1361AA SVP15/5<>SVP10/10 JV1361AC SVP15/5<>SVP10/10 JV1361AD SVP15/5<>SVP10/10 JV1361AE SVP15/5<>SVP10/10 JVXV01AA SVP15/5<>SVP10/10 JVXV01AE SVP15/5<>SVP10/10 JVXV61AA SVP15/5<>SVP10/10 JVXWF1AA SVP15/5<>SVP10/10 JVXWH1AA SVP15/5<>SVP10/10 Q:VC 8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. No N/A OK 8.09 Method Blank is within Control Limits. No N/A OK 8.1 Comments: 8.11 Matrix Blank is within Control Limits. Yeş No N/A 8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). Yeşr No N∕A 8.13 QAS Specified Duplicate Equation Value within Control Limits. Yes No N/A OK (RPD) 8.14 LCS within Control Limits. Yeş No N/A OK 8.15 MLCS within Control Limits. No N/A OK 8.16 MS within Control Limits. Yes No N/A No Matrix Spike Samples (MS) found in Batch! 8.17 Tracer within Control Limits. Yes No N/A No Tracers found in Batch! 8.18 Samples are above Minimum Tracer Yield (No Failed Samples) Yes No N/A No Tracers found in Batch! 8.19 Sample Specific MDC <= CRDL. Yeş No N/A OK 8.2 Comments: 8.21 Result < Lc, Activity Not Detected, U Flag. Yes No N/A No Limit Specified! STL Richland Page 1 QAS_RADCALCv4.8.26

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STL RICHLAND

8 22	Pooult a Mdo. Ashiriba Nas Data and T. E.			
0.22	Result < Mdc, Activity Not Detected, U Flag.	Yeş	No	N/A
	No Positive Results OK Calc_IDL Not Calculated	V		
8 23	Result <= Action Level, when Defined.			
0.20	OK; No Action Level Found => H-3	Yeş	No	N/A
	OV' NO YCTION FEASI LORING => 4-3	V		
	OK; No Callin Level Found => H-3			
8.24	Result + 3s >= 0, Not Too Negative.	Vaa	Na	KI/A
	OK .	Yes	140	N/A
8.25	Counting Spectrum are within FWHM Limits.	Yes	No	N/A
	No FWHM found in Batch Data!	163	140	N/A
8.26	Instruments have Current Calibrations.	Vaa	Na	N/A
		163	NO	IVA
8.27	Correct Count Library Used.	Voc	No	N/A
	No Count Library found in Batch Data!	163	NO	1
8.28	Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version	2636	No	NI/A
	To be developed in later version	i ibçə	NU	IN/A
8.29	Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later	Monoria	LABIC	NI/A
	To be developed in later	A EXCESS C	Jianey.	IW/A
8.3 (Comments:			
8.31	Results Blank Subtracted as Appropriate.	Yes	No	N/A
	OK	Z	110	IV/A
ĺ		4		

STL Richland
QAS_RADCALCv4.8.26

Date 5/29/07

Page 2

STL RICHLAND



OC Batch Number:

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

7121276

Review Item	Yes (V)	No(V)	N/A(V)
A. Sample Analysis			1,122 (1)
. Are the sample yields within acceptance criteria?		}	
2. Is the sample Minimum Detectable Activity < the Contract			
Detection Limit?			.
3. Are the correct isotopes reported?			
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the		ļ	
Conuact Detection Limit?			
2. Does the blank result meet the Contract criteria?	+ ->-		
3. Is the blank result < the Contract Detection Limit?	+	-	
4. Is the blank result > the Contract Detection Limit but the sample	+		
result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection	+		
Limi?			1
B. Do the MS/MSD results and yields meet acceptance criteria?	 	-	
Do the duplicate sample results and yields meet acceptance			
riteria?	1 -		
C. Other	+	<u> </u>	<u> </u>
. Are all Nonconformances included and noted?		1	
2. Are all required forms filled out?			
3. Was the correct methodology used?		<u> </u>	
Was transcription checked?	-		
. Were all calculations checked at a minimum frequency?	+	<u> </u>	·
6. Were units checked?	1	<u> </u>	
		<u></u>	'
Comments on any "No" response:			

Second Level Review Skary (a Clan Date 5-29-07

25050-46	EVERN TRENT	STL	Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review	7/2/2007 1	1:19	9:49	AM
Lo	t No., Due	Date:	J7D300106,J7D300112; 06/11/2007			N/-4	
	ient, Site:		384868; PGW 615HANFORD HANFORD				
QC	Batch No	o., Method Tes	t: 7159349; RH3EE H3EE by LSC				
SD)G, Matrix:		W05161; WATER				
1.1			includes all applicable analysis, dates, SOP numbers, and revisions?	Y	(eg	No	N/A
2.0 2.1	QC Batch Do the Sun	1 nmary/Detailed F	leports include a calculated result for each sample listed on the QC Batch Sheet?	Y	eş	No	N/A
2,2	Are the QC	appropriate for t	he analysis included in the batch?	Y	V es	No	N/A
2.3	Is the Analy	ytical Batch Worl	sheet complete; includes as appropriate, volumes, count times, etc?	4	V		
				4	Ž	NO	N/A
			le a Tracer Vial label for each sample?	Υ	es	No	N/A
	QC & Sar Is the blank		nd MDA within contract limits?	Υ	eş	No	N/A
3.2	Is the LCS	result, yield, and	MDA within contract limits?	Y.	eg eg	No	N/A
3.3	Are the MS	/MSD results, yie	lds, and MDA within contract limits?	Y.	/ es	No	N/A
3.4	Are the dup	licate result, yiel	ds, and MDAs within contract limits?				N/A
3.5	Are the san	nple yields and M	DAs within contract limits?				N/A
	Raw Data			4			
		s calculated in th		Ye A	ea	No	N/A
.2	Were analy	sis volumes ente	red correctly?	Y	eş	No	N/A
.3	Were Yields	s entered correct	y?	Y	es	No	N/A
.4	Were spect	ra reviewed/mee	contractual requirements?	Ye	eş '	No	N/A
.5	Were raw co	ounts reviewed fo	or anomalies?	Ye	g By i	No	N/A
	Other Are all nonc	onformances inc	luded and noted?	V	<i>f</i>		
		red forms filled o					N/A
		rect methodolog		4		No	
		iption checked?	y useu:	Ye	9 1	No	N/A
			d at a minimum frequency?	Ye	9 1	No	N/A
		et entries compl	, ,	Ye	9 1	No	N/A
				Ye ∀	9 1	No I	N/A
U I	See NCM 10	on any No respor -10281.	se:				

STL Richland

QAS_RADCALCv4.8.27

Page 1

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Review Item	Yes (V)	No (V)	N/A(V)
A. Sample Analysis			- 21/21(1)
. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract		 	-
Detection Limit?			.
3. Are the correct isotopes reported?			-
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the			
Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?			
3. Is the blank result < the Contract Detection Limit?	1		
4. Is the blank result > the Contract Detection Limit but the sample			
result < the Contract Detection Limit?			
Is the LCS recovery with contract acceptance criteria?			
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection			
-11111[[
Do the MS/MSD results and yields meet acceptance criteria?			1
. Do the duplicate sample results and yields meet acceptance riteria?			+
C. Other			
	·		
Are all Nonconformances included and noted?			
Are all required forms filled out?			
. Was the correct methodology used?			
. Was transcription checked?			
. Were all calculations checked at a minimum frequency? . Were units checked?	/		1
Were ming checked?	p. P. C.		·
Comments on any "No" response: Dee 11 Cm			
,			
		,	

Clouseau Nonconformance Memo

STL

NCM #: 10-10281

NCM Initiated By: angela long Date Opened: 07/02/2007

Date Closed:

Classification: Deficiency

Status: GLREVIEW

Production Area: Environmental - Sep

Tests: H3EE by LSC

Lot #'s (Sample #'s): J7D300106 (1,2,3),

J7D300112 (1,2,3,4,5),

J7E010000 (278), J7F080000

QC Batches: 7121278, 7152412, 7159349,

Nonconformance: Other (describe in detail) Subcategory: Other (explanation required)

Problem Description / Root Cause

<u>Name</u> angela long <u>Date</u>

07/02/2007

<u>Description</u>
The original batch had a high blank so a recount was issued. The recount also had a high blank so a rerun was issued. The rerun is within acceptable limits so the batch will be accepted. The high blank may have been caused by some high samples that

were nearby.

Corrective Action

Name angela long

Date 07/02/2007 **Corrective Action**

The samples have been separated from the blank when they are being added to

ensure that the blank does not gain any excess tritium.

Client Notification Summary

Client

Project Manager

Notified

Response How Notified

<u>Note</u>

Response

Response Note

Quality Assurance Verification

Verified By

Due Date

<u>Status</u>

Notes

This section not yet completed by QA.

Approval History

Date Approved

Approved By

Position

SEVERN STL

Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

6/11/2007 7:17:54 AM

Lot No., Due Date:

J7D300118; 06/11/2007

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7121268; RUNAT UNat by KPA

SDG, Matrix:

W05161; WATER

) or	JG, Matrix:	W05161; WATER			
1.0	COC Is the ICOC page complete; in	cludes all applicable analysis, dates, SOP numbers, and revisions?	Yes	No	N/A
2.0	OC Batch	ports include a calculated result for each sample listed on the QC Batch Sheet?			N/A
1		analysis included in the batch?	V		N/A
2.3	Is the Analytical Batch Worksh	neet complete; includes as appropriate, volumes, count times, etc?	Yeş		N/A
2.4	Does the Worksheets include	a Tracer Vial label for each sample?	Yes		N/A
3.0 3.1	QC & Samples Is the blank results, yield, and	MDA within contract limits?	Andi	igit.	N/A
3.2	Is the LCS result, yield, and MI	DA within contract limits?	Yeş	No	N/A
3.3	Are the MS/MSD results, yields	s, and MDA within contract limits?	Yeş	No	N/A
3.4	Are the duplicate result, yields,	and MDAs within contract limits?	Yeş	No	N/A
3.5	Are the sample yields and MD/	As within contract limits?	Yeş	No	N/A
4.0 4.1	Raw Data Were results calculated in the	Correct units?	Yeş		N/A
4.2	Were analysis volumes entered	d correctly?	Yeş	No	N/A
4.3	Were Yields entered correctly?	grande de la companya de la company La companya de la co	Yeş	No	N/A
4.4	Were spectra reviewed/meet co	ontractual requirements?	Yeş	No	N/A
4.5	Were raw counts reviewed for a	anomalies?	Yeş	No	N/A
	Other Are all nonconformances include	And Andrews (1.12년 전략 1.12년 전 Jed and noted?	Yes	No	N/A
5.2	Are all required forms filled out	r ·			N/A
5.3	Was the correct methodology u	sed?	Yeş		
5.4	Was transcription checked?		V	No	
5.5	Were all calculations checked a	at a minimum frequency?	Yes		
5.6	Are worksheet entries complete	e and correct?		No	V
6.6	Comments on any No response		V		•
					1

First Level Review ___

STL Richland
QAS_RADCALCv4.8.26

Date 6-11-7

Page 1



Data Review Checklist RADIOCHEMISTRY Second Level Review

OC Batch Number: 71268	
wo 5/le/	
Review Item	Yes (V)
A. Sample Analysis	1203(1)
1. Are the sample yields within acceptance criteria?	
2. Is the sample Minimum Detectable Activity < the Contract	-

No (V) N/A(V) Detection Limit? 3. Are the correct isotopes reported? B. QC Samples 1. Is the Minimum Detectable Activity for the blank result \(\) the Contract Detection Limit? 2. Does the blank result meet the Contract criteria? 3. Is the blank result < the Contract Detection Limit? 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? 5. Is the LCS recovery with contract acceptance criteria? 7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection 8. Do the MS/MSD results and yields meet acceptance criteria? 9. Do the duplicate sample results and yields meet acceptance criteria? C. Other 1. Are all Nonconformances included and noted? 2. Are all required forms filled out? 3. Was the correct methodology used? 4. Was transcription checked? 5. Were all calculations checked at a minimum frequency? 6. Were units checked? Comments on any "No" response:

PNNL J70250210	
W05761	
Due 06 08:07	

PINIL	UO 576	,/			CHAIN OF	CUSTODY/	SAMPLE ANAL	YSIS REQUEST	Γ	S07-003-53
Nu	e 06	080	0 /							Page <u>l</u> of <u>l</u>
Collecto Fluor Har F. M. HAI					Contact/R			Telephone No.	MSIN	FAX
SAF No.	_				Dot Ster Sampling			509-376-5056		
S07-003					Hanford			Purchase Order		
Project Title SURV. MARCH	L 2007				H-1	MF -M -50	×6-6	Ice Chest No.	ERC Tem	p.
Shinned To (Lab) Severn Trent Inc	componented Di	ahlaa d				Shipment		Bill of Lading/A	ir Bill No.	
Protocol	antikished, Ki	chiand		A-111	Govt. V					
SURV						Pric	ority: 45 Days	Offsite Property	v No.	
POSSIBLE SAMP ** ** Contains Rac releasable per DOE Or	dioactive Materi	al at cor	ncentrations that	; are not regulat	ted for transportation per 4	9 CFR but are not	i closure of 14 days.	Hold Time II PNNL samples submitted under A raples submitted into one SDG, daily	a, G, I, S, and W 07 SAFs into	remotion: Yes No o one SDG, not to exceed SDG
Sample No.	Lab ID	*	Date	Time	No/Type Container		Sample A	Analysis		Preservative
B1MF06		W	4 247	1032	1x20-mL P	Activity Scan			None	r reservative
B1MF06		W	4	*	3x1000-mL G/P	SRISO SEP PRE	ECIP_GPC: Sr-90 (1)		HNO3 to pH <2	
									11NO3 to pri \2	
								/ () /		
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Relinquished By Han F. M. HAL	ford Print	7,	Sign	APR-2	4 2007 Ly	Received By Sm. 4	Perion Sign	APR 2 4 2007	40	Matrix *
Relinquished By				-	Date/Time	Received By	2 Umerk	Date/Time	S = Soil SE = Sedimen SO = Solid SI = Sludge	DS = Drum Solid DI = Drum Lioui T = Tissue WI = Wine
Relinquished By					Date/Time	Received By		Date/Time	W = Water O = Oil A = Air	1. = Liquid V = Vegetation X = Other
Relinquished By				- (19 <u>4</u> -10-)	Date/Time	Received By		Date/Time	L	
FINAL SAMPLE		dethod	(e.g., Return to	customer, per la	ab procedure, used in proce	l ess)	Disposed By	To the second se	Da	ate/Time

PNNL J7	D2502 W0510	210 61 08 ·	07		CHAI	N OF	CUSTODY/	SAMPLE ANAL	YSIS R	EQUEST	•	C.O.C. #	S07-00	
Collector Fluor Hanto	xd					Contact/Re				elephone No.	MSII	L	FAX	
SAF NE. M. HALL						Dot Stew Sampling (509-376-5056				
_S07-003						Hanford			r	urchase Order	Charge Code			
Project Title L_SURV. MARCH	2007					H	HF -N-50) Co - Co	1	ce Chest No.	ERC	Temp.		
Shinned To (Lab)						Method of			- l	ill of Lading/A	<u> </u>			
ISevern Trent Inc Protocol	ornorated. Ric	hland				Goyt, Ve	hicle	W. W						
SURV							Prio	rity: 45 Days	C	Offsite Property	No.			
POSSIBLE SAMP ** ** Contains Rad releasable per DOE Or	lioactive Materia	al at con	centrations that	are not regula	ted for transpor	rtation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all closure of 14 days. WSCF: Batch all PNNL GW sam	li PNNL samples	submitted under A.	G, I, S, and W 07 S	ivity Exem SAFs into or	notion: Yes 🗹 ne SDG, not to exc	No Creed SDG
Sample No.	Lab ID	*	Date	Time	No/Type	Container		Sample A	Analysis	······································			Preservative	
B1MF16		W	4/24/7	1220	1x20-mL	Р	Activity Scan	· · · · · · · · · · · · · · · · · · ·	······································		None	<u>_</u>		
B1MF16		w	1	,	3x1000-m	nL G/P	SRISO SEP PRE	ECIP_GPC: Sr-90 (1)	·		HNO3 to pH <2)		
B1MF16		w	4		1x4000-m	nL G/P	GAMMALL_GS: L				HNO3 to pH <2			
	†								LL9	***	11100 to pi 1 \2			
		\vdash						<u> </u>	<u> </u>	·				
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Relinquished Planfo F. M. HALL	rd Print		They	APR 2	Date/T	ime / 4/10	Received By	Som U	APR 2	Date/Time/		Soil	Matrix *	Drum Solid
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Relinquished By					Date/T	ime	Received By	Name of the state	****	Date/Time				

Disposed By

Date/Time

FINAL SAMPLE

DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

PNNL J70250210 W05761 C.O.C.# S07-003-33 CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST Due 06.08.07 Page 1 of 1 Fluor Hanford Collector Contact/Requester Telephone No. MSIN FAX F. M. HALL Dot Stewart 509-376-5056 SAF No. Sampling Origin Purchase Order/Charge Code S07-003 Hanford Site Project Title Ice Chest No. Temp. HHF-N-506-6 ERC SURV, MARCH 2007 Shinned To (Lah) Method of Shipment Bill of Lading/Air Bill No. Severn Trent Incorporated, Richland Govt. Vehicle Protocol Offsite Property No. Priority: 45 Days SURV POSSIBLE SAMPLE HAZARDS/REMARKS SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes V No ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG releasable per DOE Order 5400.5 (1990/1993) closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure. Sample No. Lab ID Date No/Type Container Time Sample Analysis Preservative B1MDY5 W 4/24/7 1x20-mL P **Activity Scan** 1310 None B1MDY5 W 3x1000-mL G/P SRISO SEP PRECIP GPC: Sr-90 (1) HNO3 to pH <2 JVLMC APR 2 1 2007 Pate/Time 14/19 Received By Date/Time/4/60 Relinquished By Matrix * Fluor Hanford APR 2 4 2007 = Soil DS = Drim Solid Relinquished By SE = Sediment Date/Time Received By Date/Time = Drum Lioui SO = Solid = Tissue = Shidge = Wine w = Water = Liand Relinquished By Date/Time Received By Date/Time 0 = Oil = Vegetation = Other

FINAL SAMPLE DISPOSITION

Relinquished By

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Date/Time

Received By

Disposed By

Date/Time

Date/Time

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Sample Check-in List

Chi	eni: Pbw	SDG #		·
		*********	NA() SA	507-003
Ch:	order ramber:		Chain of Custody #	807-003-53, 71, 33
2011	pping Container ID:		Air Bill #	
•	Chainal 26412	on shipping container int		YALI Yes Y No .
2	Custody Seals	dated and signed?		
3.	Chain of Custo	dy record present?	,	AV () Les Ni Wol
4.			. 11	Yes / No
6	Number of sam	ples in shipping containe:	w wermicoute-packing ma З	resy No
7	Sample holding	times exceeded?	white the same and	
8.	Samples have	and an adding :	.N	AN Yes No:
	tnpe			
	custody se	eals	(Dayard	abels
9	Samples are		x	inte samples tabels
	in good co	ndiuon	ieakir.y	
			Have o	Cabbles
10.	Sample pH taken	2 NAG	(Only for samp	nes requiring head must.
! i		תון נוייי	<2/1 pHb2() pHb3	9 []
. 1	*For documentati	. Sample Collector Listed on only. No conective a	7 a	Yacir
12	Were any anomai	Table of the confective a	ction needed	Yes / No
13.	Description of	ies identified in sample ro	eceip:2	Yes () Nov
	Description of and	omalies (include sample n	um bers).	-
		The workship of the state of th		* ***
Sample	Custodian: 6.	Smith	Dite: 04.8	1400
Clie	nt Sample 1D	A galveir Da	400	7-01 1410
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			Antonio made, transfere derrat en 15 de Manda America de 15 de 16 de	
Then Inf	ormed on	by_	Person contacted	
] No a	ction necessary; proc	ess as is.	. craya contacted	to the second of
	/03, Rev 5	and a sum of the sum o	Date	Commission Company of the Company of

PNNL J72			7	ı	CHAI	N OF	CUSTODY/	SAMPLE ANAL	YSIS REQUEST	Γ .		003-323		
Collector R	or Hanford T. SICKLE					Contact/Re	auester		Telephone No.	MSI	<u> </u>	of <u>1</u>		
	" SIGNLE		,,,			Dot Stew	art	· · · · · · · · · · · · · · · · · · ·	509-376-5056		III FAA			
SAF No. S07-003						Sampling C			Purchase Order	Purchase Order/Charge Code				
Project Title						Hanford		3 .	Ica Chast No.	SM 6 562 Temp.				
SURV. MARCH	2007					<u> </u>	NF-N-50	16-1	SOUC 36	2/1 cmp.				
hinned To (Lab)			····			Method of Shipment Bill of Lading/Ai								
Severn Trent Inc	ornorated. Ric	hland	······································	***********************		Govt. Ve	hicle							
Protocol SURV							Pric	No.						
** ** Contains Rac eleasable per DOE Or	lioactive Materia	al at cor	centrations that	are not regulate	ed for transpo	ortation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all closure of 14 days. WSCF: Batch all PNNL GW sam	PNNL samples submitted under A	A, G, I, S, and W 07	ctivity Exemption: Y			
Sample No.	Lab ID	*	Date	Time	No/Type	Container		Sample A	nalysis		Presen	vative		
B1MDW6		W	4-25-07	1157	1x20-mL	. P	Activity Scan	· · · · · · · · · · · · · · · · · · ·		None		t ,		
B1MDW6	ļ	W	1	4	3x1000-i	mL P	TRITIUM_ELECT	LSC LL: H-3 (1)		None				
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							4	***************************************						
Relinguished By Hantoro	Print		361	g T	Date/	ImelZi4	Received By	Print Sign	Date/Time	1	Matrix *			
R. T. SICKLE				AF		<u> 2007 '</u>	La Contr	ERIC Darly	APR 2 5 200			S = Dram Soi		
Relinquished By	C				Date/	Time	Received By	/	Date/Time	SO	= Sediment D = Solid T	≈ Tissne		
											= Sludge W = Water U	T = Wine = Liquid		
Relinquished By					Date/	Time	Received By		Date/Time	0	= Oil V = Air X	= Vegetation		

FINAL SAMPLE DISPOSITION

Relinquished By

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Date/Time

Received By

Disposed By

Date/Time

Date/Time

PNNL J72	030010 W0576	1	7		CHAIN OF	CUSTODY	//SAMPLE ANALYS	IS REQUEST	1	C.O.C.# S07- (003-319
Collector Flu	uor Hanford	80			Contact/R	Reguester		Telephone No.		Page <u>1</u>	of <u>l</u>
R	T. SICKLE				Dot Stev	ewart		509-376-5056	MSIN	N FAX	
SAF No. S07-003			W1		Sampling Hanford			Purchase Order/			
Proiect Title SURV, MARCH	H 2007					HNF-N.50	16-7	Ice Chest No. 5	SMLSES.	Temp.	
Shinned To (Lah) Severn Trent Inc	١	-Lland			Method of	of Shipment	*	Bill of Lading/Ai			
Protocol SURY	OTRIBICAL, AL	Name	<u> </u>	- Wi	Govt. V		riority: 45 Days	Offsite Property		***************************************	
POSSIBLE SAMP	adioactive Materia	ial at con	ncentrations that:	are not regulat	ated for transportation per 4		SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PNNL closure of 14 days. WSCF: Batch all PNNL GW samples su	Hold Time L samples submitted under A,	Total Acti , G, I, S, and W 07 S	ivity Exemption: You	es No to exceed SDG
Sample No.	Lab ID	*	Date	Time	No/Type Container		Sample Analys	sis		Preserv	rative
B1MDW4		w	4-25-07	1119	1x20-mL P	Activity Scan			None	11000.	/anve
B1MDW4		W	Ъ	-6	3x1000-mL P		T_LSC_LL: H-3 (1)		None		
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Relin ificon diagrafor			Sign		Date/Time 124	Received By	Print Sign	Date/Time		1 (atmin #	
R. T. SICKLE		A	~		APR 2 5 201	Received By The state of the s	Enil Dink	Date/Time)		Matrix *	
Relinquished By		<i>V</i>			Date/Time	Received By	- ZILL CHING	APR 2 5 20 Date/Time	SE = SO = SL =	Sediment DI. Solid T Sludge WI	= Drim Liq = Tissue = Wine
Relinquished By					Date/Time	Received By		Date/Time	Ω =	Water I. Oil V Air X	= Liquid = Vegetatio = Other
Relinquished By					Date/Time	Received By		Date/Time			
FINAL SAMPLI DISPOSITION		vlethod	(e.g., Return to	customer, per	lab procedure, used in proc	cess)	Disposed By			Date/Time	

PNNL J7 L) 300 M U0 576. R OG 08	06 1.01	7		CHAI	N OF	CUSTODY/	SAMPLE ANALY	SIS REQUEST	Γ	C.o.c.# S07-003-315			
Collector R	luor Hanford . T. SICKLE					Contact/Re			Telephone No.	MS	Page <u>1</u> of <u>1</u> SIN FAX			
SAF No.						Dot Stev Sampling (509-376-5056 Purchase Order					
S07-003 Project Title	· · · · · · · · · · · · · · · · · · ·					Hanford								
SURV. MARCH Shinned To (Lab)	2007		····		·	<u> </u>	N= N:506	· /		Ice Chest No. 5ML 562 Temp.				
Severn Trent Inc.	ornorated. Ric	hland				Method of Govt. Ve			Bill of Lading/A	Bill of Lading/Air Bill No.				
Protocol SURV							Pric							
POSSIBLE SAMP ** ** Contains Rad releasable per DOE Ore	lioactive Materia	al at cor	ncentrations that	are not regular	ted for transp	ortation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PN closure of 14 days. WSCF: Batch all PNNL GW sample		A, G, I, S, and W 0	ctivity Exemption: Yes V No 7 SAFs into one SDG, not to exceed SD			
Sample No.	Lab ID	*	Date	Time	No/Type	Container		Sample Ana	lysis		Preservative			
B1MDW2		W	4.5.07	1037	1x20-ml	. P	Activity Scan	The state of the s	2	None				
B1MDW2	W 1 3x100				3x1000-	mL P	TRITIUM_ELECT	_LSC_LL: H-3 (1)		None				
								JVXKH						
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Relinquished By Fluor Hanto	Print	7/	Sign	A	Date/	Fime 1214	Received By	Print Sign	Date/Time)	214	Matrix *			
R. T. SICKLE Relinquished By		1		A	PK 2 5		FRICE DO	My En I day	APR 2.5.2 Date/Time	SE	= Soil DS = Drum So = Sediment DL = Drum Lie			
Relinquished By					Date/	lime	Received By		Date/Time	SI.	= Solid			

Date/Time

Date/Time

Disposed By

Date/Time

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Received By

FINAL SAMPLE DISPOSITION

Relinquished By

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Patishing nearly	Complete informed on a complete in the complet
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Yes 11 No	Were any anomalies identified in sample receipt? Description of anomalies (include sample menocis)
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e and the sound of	Sabyla Hq siqmis VI
Jakin d labels	Samples me custody seats
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A The second sec	Mumber of sampies in shipping continue
MALL Yes MAN	Chain of Custody record present?
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Que a	6080	7								Page <u>1</u> of <u>1</u>
ollector					Contact/Re			Telephone No.	MSIN	FAX
APD. WA	11				Dot Stew Sampling (509-376-5056		
S07-004	*L.L				Hanford			Purchase Orde	r/Charge Code	
roiect Title SURV, APRIL 20	007				il A	N-N-506-8	,	Ice Chest No	11, -137	Гетр.
hinned To (Lab)	<i>N.</i>				Method of	Shinment		Bill of Lading/	Air Bill No	
Severn Trent Inc.	ornorated. Ric	hland	····		Govt. Ve		4-14-14-14-14-14-14-14-14-14-14-14-14-14	Dill VI Dading/		
'rotocol SURV						Pri	ority: 45 Days	Offsite Propert	v No.	
** ** Contains Rad eleasable per DOE On	lioactive Materia	l at con	ncentrations that	are not regula	ed for transportation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all P closure of 14 days. WSCF: Batch all PNNL GW sampl		A, G, I, S, and W 07 SAF	v Exemption: Yes V No s into one SDG, not to exceed SD
Sample No.	Lab ID	*	Date	Time	No/Type Container		Sample An	alysis		Preservative
B1MPP7		W	4-25-07 1204 1x20-n		1x20-mL P	Activity Scan	***		None	
B1MPP7	W J 3x10				3x1000-mL P	TRITIUM_ELEC	T_LSC_LL: H-3 (1)		None	
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Date/Time

Date/Time

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Received By

Received By

SE SO SL W O

Date/Time

Date/Time

Disposed By

= Sediment = Solid

Date/Time

= Shidge = Water = Oil = Air

= Dram Laut
= Tissue
= Wine
= Liouid
= Vegetation
= Other

Relinquished By

Relinquished By

FINAL SAMPLE

PNNL 77	06.08	12 107			CHAIN	OF (CUSTODY	SAMPLE A	NALYSI	S REQUEST		C.O.C.#	S07-004-344		
Collector D. V	AIAIR					ontact/Re				Telephone No.	MSI		<u>l</u> of <u>l</u>		
SAF No.	V/ Lil					Dot Stew				509-376-5056			CAA		
S07-004						Hanford				Purchase Order/Charge Code					
Project Title SURV. APRIL 2	007					H	VF-N-506.	-9/		Ice Chest No. Sm/ -/37 Temp.					
Shinned To (1.8b)					М						Dric ()				
Severn Trent Inc	comorated. Ric	chland				Govt. Ve				Bill of Lading/A	ir Bill No.				
Protocol SURV						Priority: 45 Days Offsite Property No.									
POSSIBLE SAMI ** ** Contains Ra releasable per DOE O	dioactive Materia	al at co	ncentrations that	are not regular	ted for transporta	ation per 49	CFR but are not	closure of 14 days.	Batch all PNNL s	Hold Time amples submitted under A mitted into one SDG, daily	, G, I, S, and W 07 S	ivity Exemp AFs into one	tion: Yes V No SDG, not to exceed SD		
Sample No.	Lab ID	*	Date	Time	No/Type Co	ontainer		S	ample Analysis				Programative		
B1MPN3		W	42507	0453	1x20-mL P	>	Activity Scan				None		Preservative		
B1MPN3		W	1/	J	3x1000-mL	. P	TRITIUM_ELECT	LSC 11: H-3 (1)		· · · · · · · · · · · · · · · · · · ·	None				
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	(/	1.1/2	ところ	<u>火</u>			ERIC DA	My E1	A A	PR 2 5 2007	' s =	Soil	DS = Drim So		
Relinquished By	V		-		Date/Time	e	Received By	7		Date/Time	SE = SO = SL =	Sediment Solid Sludge	DI = Drim Lie T = Tissue WI = Wine		
Relinquished By					Date/Time	e	Received By			Date/Time	W ≃	Water Oil	I. = Liquid V = Vegetatio X = Other		

FINAL SAMPLE DISPOSITION

Relinquished By

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Date/Time

Received By

Disposed By

Date/Time

Date/Time

PNNL	0300 W051	117 161	.07		CHAIN OI	F CUSTODY	/SAMPLE ANAL	YSIS REQUEST		S07-004-345		
IL OHECTOR						/Requester		Telephone No.	MSIN	Page 1 of 1		
SAF No. 10. V	VALL					tewart 12 Origin	art 509-376-50			56		
S07-004						ord Site	r ur chase Or					
Proiect Title SURV. APRIL 2	2007				4	NF-N-506	1/= 1/-571/-9 Ice Cl			Temp.		
Shinned To (Lab)					Method	of Shipment		Ice Chest No.	ML 137			
Severn Trent Inc	corporated. Ric	hland	······			Vehicle		om or Cading/A	ar Bili No.	į		
SURV						Pri	ority: 45 Days	Offsite Property	No.			
POSSIBLE SAMI ** ** Contains Ra releasable per DOE O	dioactive Materia	al at cor	centrations that	are not regula	ted for transportation per	r 49 CFR but are not	1 closure of 14 days.	Hold Time 1 PNNL samples submitted under A uples submitted into one SDG, daily	, G, I, S, and W 07 SA	ity Exemption: Yes V No Fs into one SDG, not to exceed SDG		
Sample No.	Lab ID	*	Date	Time	No/Type Containe	T	Sample A	Analysis		Preservative		
B1MPN4		W	4207	0800	1x20-mL P	Activity Scan			None	Troscivative		
B1MPN4		W		U	3x1000-mL P	TRITIUM_ELECT	_LSC_LL: H-3 (1)		None			
			4,00					TVXMT				

Relinquished By Relinquished By	Print	Pil), (World	20 API	Pate/Time 3	Enie D	Print Sign	})45 s = s			
Relinquished By		· · · · · · · · · · · · · · · · · · ·			Date/Time	Received By Received By		Date/Time	SO = S SI = S W = W	ediment DL = Drum Liqui Dlid T = Tissue bldge WI = Wine Vater L = Liquid		
						,		Date/Time	O = O A = A			
Relinquished By					Date/Time	Received By	*****	Date/Time				
FINAL SAMPLI DISPOSITION	E Disposal N	fethod :	(e.g., Return to	customer, per l	ab procedure, used in pro	ocess)	Disposed By			Date/Time		

PNNL J7D 300112
WO 5761
Due 06-08-07

Due 4	00 576 01 108	ノ			CHAIN	OF	CUSTODY/	SAMPLE AT	NALYSIS I	REQUEST		S	7-004-35	2
offil a	16.00			···								Page	<u>1</u> of <u>1</u>	
Colegio. WA					C	ontact/Re				Telephone No.	MSIN			\dashv
SAF No.					Sa	empling (origin Corigin			509-376-5056 Purchase Order/Charge Code				\dashv
S07-004 Project Title	-					Hanford	d Site							
SURV, APRIL 200	07						WF-N-506-8			Ice Chest No. 11 - 137 Temp.				7
Shinned To (1.ah) Severn Trent Incom	manutad Dia	blond			М	ethod of	Shipment			Bill of Lading/A			V	-
Protocol	comment Ru	TOMOU.				Govt. Ve								
SURV			***************************************	W			Prio	ority: 45 Days		Offsite Property	No.			
POSSIBLE SAMPL ** ** Contains Radio releasable per DOE Orde	oactive Materia	l at cor	centrations that	are not regulat	ted for transporta	ation per 49	CFR but are not	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Y All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, no closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.					n: Yes Me No G, not to exceed SD	ь́С
Sample No.	Lab ID	*	Date	Time	No/Type Co	ontainer		S	ample Analysis		1999-248	D.	eservative	
B1MPP1	******	W	42507	1042	1x20-mL F)	Activity Scan		1		None		COCIVATIVE	
B1MPP1		W	1,		3x1000-mL	, P	TRITIUM_ELECT	LSC 11: H-3 (1)			None			
				 Y							None			
										-				
				<u> </u>					JVXMX					
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Relinquished By	Print	2 .	Sign	\mathcal{V}	Date/Tim	:124h	Received By	Print	Sign	Date/Time /	745 -			
f mm anno.			11 XV	/455	2 E 2007		× 1	\	,	Date Time /	111	Matri	x *	
Reiniquished By	Date/Time						Received By	EnelD	APR	2 5 2007 _{ime}	S = SE = SO = SL =	Soil Sediment Solid Sludge	DS = Drim So DL = Drim Li T = Tissue WI = Wine	
Relinquished By					Date/Tim	e	Received By Date/Time O A			W = 0 =	Water Oil	L = Liquid V = Vegetati X = Other	іоп	
Relinquished By					Date/Time	e	Received By			Date/Time				-
FINAL SAMPLE DISPOSITION	Disposal M	fethod	(e.g., Return to	customer, per l	ab procedure, us	sed in proce	ss)	Dispo	sed By			Date/Time		

PNNL J7.	B 300 D 3001 LO 576	12	1406	.08.07	CHAI	N OF (CUSTODY/	SAMPLE ANA	LYSIS I	REQUEST	1		-004-360	
Collector D. W	/ΔΙΙ					Contact/Re				Telephone No.	MSIN	FAX		
ŞAF No.	7 A date State					Dot Stewart Sampling Origin				509-376-5056 Purchase Order/	Charge Code			
S07-004						Hanford Site								
Proiect Title SURV, APRIL 20	007						HWF-W-5068				Ice Chest No SML - 137 Temp.			
Shinned To (Lah) Severn Trent Inco		bland	-/	······································		Method of S Goyt, Ve				Bill of Lading/Ai				
Protocol	ornorates), Kit	niana.	· · · · · · · · · · · · · · · · · · ·		***************************************	Goyt, ve		ority: 45 Days		Offsite Property	No.			
SURV POSSIBLE SAMP ** ** Contains Rad releasable per DOE On	lioactive Materia	l at conce		are not regulat	ed for transpo	ortation per 49		SPECIAL INSTRUCTIO All Labs except WSCF: Bate closure of 14 days. WSCF: Batch all PNNL GW	h all PNNL samp		G, I, S, and W 07 SA	ity Exemption: Fs into one SDG, r		
Sample No.	Lab ID		Date	Time	No/Type	Container		Same	ole Analysis			Prese	ervative	
B1MPP5		W 4	1-25-07	1123	1x20-mL		Activity Scan				None			
B1MPP5		w	V	J	3x1000-r	nL P	TRITIUM_ELECT	_LSC_LL: H-3 (1)			None			
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						-,>/					1745			
Relinquished By Relinquished By	Print it.).(vell	APR	7 5 7M Date/	77	Received By ERY DG (Received By	My E Du	1gn Al	PR 2 5 2007 Date/Time	SE = SO =	Sediment I Solid	* DS = Dram Solid DL = Dram Liqui T = Tissue WI = Wire	
Relinquished By		Date/Time						Received By Date/Time			W = 0		I. = Liquid V = Venetation X = Other	
Relinquished By					Date/	Time	Received By	-		Date/Time				
FINAL SAMPL DISPOSITION		Method (e.g., Return to	customer, per	lab procedure	e, used in proc	ess)	Disposed	Ву	44/14/14		Date/Time		

Sample Checkers Ulyi

Che	ent. Pow SDG 11 wa	05/6/ NAI! SAF 11 807-004
Wo	rk Order Number J7D 300 1/2	C-A'7
Shy	Costody Sears on sharence	Chair of Custody 11 801-004-364 344,3
	Costody Sears on shapping comemo, and	352,
Ž	Custody Seals dated and signed?	AWAY ARM NOW
į.	Chain of Custody record present?	NATE VELVE
ş	Couler temperature NA	The Man Yes No.
é	Number of samples in shipping container	5
7	Sample heroing times exceeded	
\$	Samples have	NA Yes CAN
	custody seats	insuid laberg
ý	Sample are in good condition broken	ippopulate samples ratery
Ü	Sample pH taken? NA () pH-	Only for summers require is near the philosoft
1	Sample Location, Sample Collector Listed * For documentation only. No contective ac-	
,	Were any anomalies identified in sample in	ter sign
-	Description of anomalies (include sample in	Auber, The Land Control of the Contr
mple (Custodian En Party	A second
Cher		
	2010 1/313 KCG 1C 306	Condition See April 18
nt Taf¢	prined on by	Person comacical
(Yo uc	Con necessary, process as is.	AND SANGACICES
	Inager S	

PNNL	J70300118 W05161
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_	W052				CHAIN OF	CUSTODY/	SAMPLE ANALY	SIS REQUEST	_	507-00	04-272	
Du	e 66.0	8.0.	7							Page <u>1</u> o	f <u>1</u>	
Collector Fluor F. M. J	Hanford					/Requester		Telephone No.	Telephone No. MSIN FAX 509-376-5056			
AF No.						g Origin			Purchase Order/Charge Code			
S07-004 Project Title					Hanfo	ord Site	c. t (Ice Chest No.		Тетр.		
SURV. APRIL 2						HMF -M-5	06.0		38	A CHID!		
Shinned To (Lah) Severn Trent Inc		hland				of Shipment Vehicle		Bill of Lading/A	r Bill No.			
Protocol SURV		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				Pric	ority: 45 Days	Offsite Property	No.			
POSSIBLE SAMP	dioactive Materi	al at co	ncentrations that	are not regula	ted for transportation per	r 49 CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PN closure of 14 days. WSCF: Batch all PNNL GW sample	•	G, I, S, and W 07 SA	itv Exemption: Yes Fs into one SDG, not to	No Lo exceed SDG	
Sample No.	Lab ID	*	Date	Time	No/Type Containe	ет	Sample Ana	alysis		Preserva	tive	
B1MRL4		w	4/25/7						None	1		
B1MRL4		W	V	1	2x4000-mL G/P	I129LL_SEP_LEF	PS_GS_LL: I-129 (1)		None			
		1										
							J	VXPA				
										,		
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Dalia dala Jan	D.		-21		124	Received By	Print Sign	ADD 2 F Date/Time	1265	Matrix *		
Relinquished By Fluor Ha	inford Prin	3	The	APR	2 5 2007	1 -	Exic Durly	APR 2 5 2007	S =	Soil DS	≃ Drim Solid	
Relinquished By	7		7		Date/Time	Received By	7	Date/Time	SO = St. =	Sediment DI. Solid T Sludge WI Water I.	= Dram Liour = Tissue = Wine = Liquid	
Relinquished By					Date/Time	Received By		Date/Time		Oil V	VegetationOther	
Relinquished By					Date/Time	Received By		Date/Time	F			
TINAL CAREN	to Diances	116-4	1/o = D== /		a lab assessadores are altimate		Disposed By			Date/Time		
FINAL SAMPL DISPOSITION		Metho	u (c.g., Ketum t	o customer, pe	r lab procedure, used in p	processy	Disposed by			armer I many		

Collector Fluor Harnord	
Due 06 08 C	7
PNNL J70300118 W05161	

F V	W0510	101 18:6	27		CHAIN OF	CUSTODY/	SAMPLE ANALYSIS	REQUEST		S07-004-273		
204	ue vo									Page <u>1</u> of <u>1</u>		
Collector Fluor	Harnoru HALL				Contact/R			Telephone No.	Teleohone No. MSIN FAX 509-376-5056			
SAF No. 2 S07-004					Sampling Hanford	Origin		Purchase Order/Charge Code				
Project Title SURV. APRIL 2	2007		***	***		HF -M-506	·-60	Ice Chest No.	Ice Chest No. Temp.			
Shinned To (Lah) Severn Trent Inc		hland	**************************************	**************************************	Method o	f Shipment		Bill of Lading/A	ir Bill No.			
ProtocolSURV	ABINBARAD. IXA	<u> </u>	**************************************	he ender produce v trebunden	JOYL Y		ority: 45 Days	Offsite Property	No.			
POSSIBLE SAMI	dioactive Materia	al at cor	ncentrations that	are not regula	ated for transportation per 4	19 CFR but are not	SPECIAL INSTRUCTIONS Hold Time Total Activity Exempti All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one S closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.					
Sample No.	Lab ID	*	Date	Time	No/Type Container		Sample Analysis			Preservative		
B1MRL5		W	4/25/7	1145	1x20-mL P	Activity Scan			None			
B1MRL5		W	4	4	2x4000-mL G/P	I129LL_SEP_LEF	PS_GS_LL: I-129 (1)		None			
		<u> </u>		<u> </u>				(PC				
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Relinquished By	Hanford Print		Aign &	PP-25	2007	Received By	Print Sign	Date/Time	125/2	Matrix *		
F. M. F Relinquished By	1ALL	<i>JR</i> ;	sac		Date/Time	Received By	by EncoungAPR 2	5 2007 Date/Time	S = Soil SE = Sedime SO = Solid SI = Sludge W = Water	T = Tissue		
Relinquished By					Date/Time	Received By	ceived By Date/Time			V = Vegetation X = Other		
Relinquished By				10.00	Date/Time	Received By		Date/Time				
FINAL SAMPL DISPOSITION		Method	(e.g., Return to	customer, per	r lab procedure, used in pro	cess)	Disposed By		r	Date/Time		

PNNL	JII	30 WO	011 510	8
	V			

ر (ر	w05				CHAIN OF	CUSTODY	SAMPLE ANALYSI	S REQUEST	r	S07-004-280		
									P	eage 1 of 1		
0 1000	Hanford HALL				Contact/R Dot Stev			Telephone No.				
D124 140.	TIMES				Sampling	Origin		509-376-5056 Purchase Order				
S07-004 Project Title				·	Hanford			į				
SURV. APRIL					<u>}</u>	HF-H-50	ڪ- <i>علا</i>	Ice Chest No.	三凡C Temp	۱.		
Shinned To (Lah) Severn Trent In		oblond			Method of	Shipment		Bill of Lading/A				
Protocol	азмимани, ки	знани			Govt. V			Office Post 4	N			
SURV						Prie	ority: 45 Days	Offsite Property	/ No.			
POSSIBLE SAM ** ** Contains Ri releasable per DOE C	adioactive Materi	al at con	ncentrations that	t are not regular	ated for transportation per 49	9 CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PNNL s closure of 14 days. WSCF: Batch all PNNL GW samples sub		., G, l, S, and W 07 SAFs into	emption: Yes V No one SDG, not to exceed SDG		
Sample No.	Lab ID	*	Date	Time	No/Type Container		Sample Analysis		WALL	D.		
B1MRL8		W	4/25/7	1120	1x20-mL P	Activity Scan			None	Preservative		
B1MRL8		W	4	4	2x4000-mL G/P		PS_GS_LL: I-129 (1)		None			
									TORE			
							JVXPF					
							3 1 7 7 7	100				
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EALI	Hanford C	The state of the s	Mu	APR-2:	5 2087 Time /2 55	Received By	Print Sign APR	2 5 2007 te/Time	S = Soil	Matrix *		
Relinquished By					Date/Time	Received By		Date/Time	SO = Solid SI = Sludge	T = Tissue W1 = Wine		
Relinquished By					Date/Time	Received By		Date/Time	W = Water O = Oil A = Air	$ \begin{array}{rcl} L & = & Liauid \\ V & = & Vegetation \\ X & = & Other \end{array} $		
Relinquished By					Date/Time	Received By		Date/Time	I			
FINAL SAMPL	E Disposal I	viethod	(e.g., Return to	customer, per	lab procedure, used in proce	ess)	Disposed By		Da	te/Time		

PNNL	J7D300118 W05161
đ	Due 06 08.07

Collector Fluor H	005/	61 8.6	7			CHAII	OF	CUSTODY/S	SAMPLE ANAL	LYSIS RI	EQUEST	•	S	7-004	-288
	e va						· ·						Page	<u>l</u> of	1
Collector F.M.H	MT.					(Contact/Re			Т	elephone No.	MSI	V FA	X	
SAF No.				****		s	Dot Stew			- l	509-376-5056	509-376-5056 urchase Order/Charge Code			
S07-004					t-review		Hanford				urchase Orger/	Cuarge Code			
Project TitleSURV_APRIL 20	007	•						HHF - M - 5	06-6	Ic	e Chest No. S	ML-24	Temp.		
Shinned To (Lab) Severn Trent Inco		bland				r		Shipment		В	ill of Lading/Ai	r Bill No.			
Protocol	monasen, kie	шапо	·				Govt. Ve								
SURV								Prio	rity: 45 Days		ffsite Property	No.			
POSSIBLE SAMP ** Contains Rad releasable per DOE Ore	ioactive Materia	l at co	ncentrations t	hat are r	oot regulat	ed for transpor	tation per 49	CFR but are not	SPECIAL INSTRUCTION: All Labs except WSCF: Batch a closure of 14 days. WSCF: Batch all PNNL GW sa	all PNNL samples	submitted under A,	G, I, S, and W 07 S	ivity Exemption SAFs into one SD	n: Yes 🗹	No Ceed SDG
Sample No.	Lab ID	*	Date		Time	No/Type (Container		Sample	Analysis			P	reservative	
B1MRL9		W	4/25/	7 10	245	1x20-mL		Activity Scan				None			
B1MRL9		W			1	1x4000-m	L G/P	GAMMALL_GS: Li	st-1 (9)			HNO3 to pH <2			
B1MRL9		W				1x1000-m	L G/P	UISO_PLATE_AE	A: List-1 (3)			HNO3 to pH <2		-	
B1MRL9		W		1		1x500-mL	. P				HCl to pH <2				
B1MRL9		W				1x500-mL	G/P				HNO3 to pH <2			-	
B1MRL9		W		_		3x1000-m	L G/P				HNO3 to pH <2		·		
B1MRL9		W	V	1	4	2x4000-m	L G/P		S_GS_LL: I-129 (1)			None			
		T			***************************************										
									<u> </u>	TVXPL					
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Relinquished By From He F. M. HA	andord Print	(W.	APF	2 5	2007 te/Ti	/2 <i>5</i>	Received By	Print Sign	APR 2 !	Date/Time / 2007		Matr		
Relinquished By	7				***************************************	Date/Ti	me	Received By			Date/Time	SE *** SO == SI. ==	Soil Sediment Solid Sludge Water	DI. = 1 T = 1 WI = \	
Relinquished By						Date/Ti	me	Received By			Date/Time	O =	Oil Air	V = 1	Jegetation Other
Relinquished By						Date/Ti	me	Received By			Date/Time				
FINAL SAMPLE DISPOSITION	Disposal N	1ethod	(e.g., Return	to custo	mer, per l	ab procedure,	used in proce	ess)	Disposed By			A Management	Date/Time		

PNNL J7	D300/1	18				~		BY 0-					C.O.C.#		
Į,	W0516	-/					CHAI	NOF	CUSTODY/	SAMPLE ANALYS	SIS REQUEST	Γ	S07-004-28		
E de	ce 06 0	8.0	7_										Page 1 of 1		
Collector Fluor H	aniord			***************************************		WWW. L-2		Contact/R			Telephone No.	MSII	1		
SAF No. F. W. Th	ALL -					***************************************						-376-5056			
S07-004 Project Title								Hanford		***************************************	Purchase Orde	r/Charge Code	ge Code		
Project Title SURV. APRIL 2									HNF-N	- 506-6	Ice Chest No.	ERC	Тетр.		
Shinned To (Lab)								Method of	Shipment	- Warner and the second	Bill of Lading/A				
Severn Trent Inc. Protocol	omorated, Kid	hland						Govt. Ve							
SURV POSSIBLE SAMP									Pric	ority: 45 Days	Offsite Propert	v No.			
** ** Contains Rac releasable per DOE Or	dioactive Materia	al at co	ncentrat	tions that	(are in	ot regulat	ted for transpo	ortation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PNn closure of 14 days. WSCF: Batch all PNNL GW samples		A, G, L, S, and W 07	tivity Exemption: Yes V No SAFs into one SDG, not to exceed SD		
Sample No.	Lab ID	*	D	Date	T	Time	No/Type	Container		Sample Analy	rsis		Preservative		
B1MRM0		W	4/2	5/7	09	00	1x20-mL	Р	Activity Scan			None			
B1MRM0		W		1		T	1x4000-r	nL G/P	GAMMALL_GS: L	ist-1 (9)		HNO3 to pH <2	>		
B1MRM0		w	†	1		†	1x1000-r	nL G/P	UISO_PLATE_AE			HNO3 to pH <2			
B1MRM0		W	\Box		<u> </u>	t-	1x500-m	LP	TC99_ETVDSK_L			HCl to pH <2			
B1MRM0		W	\Box				1x500-m	L G/P	<u> </u>	JTOT_KPA: Uranium (1) HNO3 to)		
B1MRM0	1	w	1			l	3х1000-г	nL G/P	<u> </u>	ECIP_GPC: Sr-90 (1)		HNO3 to pH <2			
B1MRM0		W	1	//auten		*	2x4000-r	nL G/P		PS_GS_LL: I-129 (1)		None			
		1	<u> </u>		\vdash										
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Relinquish Floor Ha F. M. HA	mord P	The state of the s	Z.	E.	PR	25	2007 Date/T	ime /27/	Received By	Print Sign Ence Durly APR	2 5 2007	1	Matrix *		
Relinquished By		4					Date/I	ime	Received By		Date/Time	SE = SO = SL =	Soil DS = Drim S Sediment DL = Drim L Solid T = Tissue Sludge WI = Wine		
Relinquished By	Relinquished By Date/Time					Date/T	ime	Received By		Date/Time	0 =	Water I. = Limid Oil V = Vegetat Air X = Other			
Relinquished By						***************************************	Date/T	ime	Received By		Date/Time				

Disposed By

Date/Time

FINAL SAMPLE

DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)



Sample Checken: List SDG # 605761 NA(1 SAF # 507-004 ... Work Order Number 770 300 118 Chair of Custody # 507-004-272,273,28 Shaping Contained It. world by sames was thousang continue on a Custody Seats dated and signed? Chain of Custody record present? Number of samples in shipping container 5 Sample new agreement succeeds Simples have Перс ----cus(ody seats Zappropriate samples labers Samples are Zin good condition ___broken ___leaking (Only for samples requiring near thin 10 Sample pH taken? NA() White H philipping philipping Sample Location - Sample Collector Living 19 *For document ition only. No conversion of all seeds. Were any anomalies identified in sample receipt? 13 Description of anomalies (include sample numbers) Cases Informed on _____by ______Person consacted ______ 1 | No action necessary: process as is. Project Manager____ Dine LN-023 9/03, Rev 5

PNNL	7D300/38 WOSIGI
Λ	. 1/ 1/19

PNNL					CHAIN OF	CUSTODY/	SAMPLE ANALYSI	S REQUEST	P	S07-003-189
due	06-11-0	7							P	age <u>1</u> of <u>1</u>
Collec Fluor Hari F.M. HALI					Contact/R			Telephone No.	MSIN	FAX
SAF No.					Dot Stev Sampling			509-376-5056 Purchase Order		
S07-003					Hanford					
Project Title SURV. MARC						HHF-M-	506-6	Ice Chest No.	ERC Temp	
Shinned To (Lab Severn Trent Ir		hland	J-144-A		Method of			Bill of Lading/A	ir Bill No.	
Protocol	понивани, ка	mana			Govt. Ve			Offsite Property	· No	
SURV POSSIBLE SAM	IDI E WAYARE	· · ·	NA A DYZO			Pric	ority: 45 Days	OKSILE T TOBERT	110.	
** ** Contains R releasable per DOE (adioactive Materia	l at cor	centrations that	t are not regulat	ed for transportation per 49	CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PNNL closure of 14 days. WSCF: Batch all PNNL GW samples sul		, G, I, S, and W 07 SAFs into	emption: Yes M No one SDG, not to exceed SDG
Sample No.	Lab ID	*	Date	Time	No/Type Container		Sample Analysi	S	Will the second	Preservative
B1MDP3		W	4/26/7	0852	1x20-mL P	Activity Scan			None	
B1MDP3		W	1	1	1x1000-mL P	906.0_H3_LSC: T	ritium (1)		None	
B1MDP3		W	4	7	1x1000-mL P		A_GPC: Alpha + Beta (2)		HNO3 to pH <2	
							JV	(V/)		
								· Y -		
								· · · · · · · · · · · · · · · · · · ·		

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Relinquished By Fluor Ha			The state of the s	APR 2	6 2007 1230	Received By	Print Sign APR	2 6 2007 e/Time	234	Matrix *
F M HAI Relinquished By		4	MOI	-7	Date/Time	Received By	y hald	Date/Time	S = Soil SE = Sediment	
									SO = Solid St. = Studge	T = Tissue WI = Wine
Relinquished By			***************************************		Date/Time	Received By		Date/Time	W = Water O = Oil A = Air	I. = Limid V = Veretation X = Other
Relinquished By		-			Date/Time	Received By		Date/Time		
FINAL SAMPI DISPOSITIO		/lethod	(e.g., Return to	customer, per l	ab procedure, used in proc	less)	Disposed By	10000	Da	tte/Time

	2007 Demorated. Rick LE HAZARD ioactive Material	aland S/REN			Contact/Re Dot Stew Samoling C Hanford	аті		Telephone No.	MSIN	Page 1 of 1
AF No. S07-003 oject Title SURV. MARCH 2 innerl To (Lab) Severn Trent Inco otocol SURV OSSIBLE SAMPL ** Contains Radic easable per DOE Orde Sample No. E1MDP5	2007 ornorated. Rici LE HAZARD ioactive Material	S/REI			Dot Stew Sampling C Hanford	аті			MSIN	
S07-003 oject Title SURV. MARCH Zinnerl To (Lab) Severn Trent Inco otocol SURV DSSIBLE SAMPL	ornorated. Rici	S/REI			Hanford .)rigin		509-376-5056)	FAX
oiect Title SURV, MARCH 2 innerl To (Lab) Severn Trent Inco olocol SURV DSSIBLE SAMPL ** Contains Radic casable per DOE Orde Sample No. 11MDP5	ornorated. Rici	S/REI						Purchase Order	/Charge Code	
innert To (Lab) Severn Trent Inco otocol SURV DSSIBLE SAMPL ** Contains Radic easable per DOE Orde Sample No. E1MDP5	ornorated. Rici	S/REI		<u>, , , , , , , , , , , , , , , , , , , </u>				Ice Chest No.		Temp.
Severn Trent Incorporation SURV SSIBLE SAMPL ** Contains Radic easable per DOE Orde Sample No. 11MDP5	LE HAZARD	S/REI				HHF - H-	206-6	Les Chest its.	arc_	reng.
otocol SURV SSIBLE SAMPL ** Contains Radiceasable per DOE Order Sample No.	LE HAZARD	S/REI			Method of Govt. Ve			Bill of Lading/A	ir Bill No.	
SSIBLE SAMPL ** Contains Radic easable per DOE Orde Sample No. 1MDP5	ioactive Material	S/REN			7,076, 76		45.0	Offsite Property	/ No	
Sample No. 11MDP5	ioactive Material	S/KE				Pn	ority: 45 Days SPECIAL INSTRUCTIONS	Olisite Froberti		
1MDP5 1MDP5		ат сотк /1993)	centrations that	are not regulated	I for transportation per 49	CFR but are not	All Labs except WSCF: Batch all PNNI closure of 14 days. WSCF: Batch all PNNL GW samples so		a, G, I, S, and W 07 SA	vity Exemption: Yes 🗹 No L NFs into one SDG, not to exceed SDG
1MDP5	Lab ID	*	Date	Time	No/Type Container		Sample Analys	is		Preservative
		W	4/26/7	0947	1x20-mL P	Activity Scan			None	
414DDC		W	1		1x1000-mL P	906.0_H3_LSC:	Tritium (1)		None	
TMUPS		W	Y	V	1x1000-mL P	9310_ALPHABE	TA_GPC: Alpha + Beta (2)		HNO3 to pH <2	
							J1	(XV6		
			:	· · · · · · · · · · · · · · · · · · ·				THE STATE OF THE S		
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.,	L		······································	L					<u> </u>	-
elinquishe rt Bor Ha F. M. HAL			Jan .	APP 7 c	2007e/Time / 23/4	3				

	F. M. HALL	nd Print APK	2 b 2004/e/Time / 27		Print	Sign	Date/Time/ 25	P	N	latrix *	
***************************************	Relinquished By	- FILIPSUL	Date/Time	Received By	16 E Du	APR 2 6 2007	Date/Time	S SE SO SL	= Soil = Sediment = Solid = Sludge	DI. T	= Drum Solid = Drum Liqui = Tissue = Wine
	Relinquished By		Date/Time	Received By			Date/Time	W O A	= Water = Oil = Air	T. V X	= Liquid = Vegetation = Other
	Relinquished By		Date/Time	Received By	<u> </u>		Date/Time				
	FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to custome	er, per lab procedure, used in pro	ocess)	Disp	posed By			Date/T	une	

97عل

PNNL J7	D300, W057	138 161	11.07		CHAIN OI	F CUSTODY	SAMPLE ANALYSI	S REQUEST	1	S07-003-197 Page 1 of 1	
Collector M HAL	Nord		<u> </u>	***************************************		/Requester		Telephone No.	MSIN	FAX	
\$AF No.						tewart 12 Origin		509-376-5056 Purchase Order			
S07-003					Hanfo	ord Site		Tea Chart No		P	
Project Title SURY, MARCH	12007					HHF-M-S	506-6	Icc Chest No. E	zrc '	Cemp.	
Shinned To (Lab)						of Shipment		Bill of Lading/A	ir Bill No.		
Severn Trent Inc Protocol	ornorated. Ric	hland			Goyt.	Vehicle		Offsite Property No.			
SURV			······································			Pri	ority: 45 Days	Onsite Fromerity			
POSSIBLE SAME ** ** Contains Rai releasable per DOE Of	dioactive Materia	al at con	ncentrations that	are not regula	ted for transportation pe	er 49 CFR but are not	SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PNNL: closure of 14 days. WSCF: Batch all PNNL GW samples sub	•	a, G, I, S, and W 07 SAF	v Exemption: Yes M No L s into one SDG, not to exceed SDG	
Sample No.	Lab ID	*	Date	Time	No/Type Contain	er	Sample Analysis	\$		Preservative	
B1MDP7		W	4/24/7	0917	1x20-mL P	Activity Scan			None		
B1MDP7		W	1	1	1x1000-mL P	906.0_H3_LSC:	Tritium (1)		None		
B1MDP7		W	4	₩	1x1000-mL P	9310_ALPHABE	310_ALPHABETA_GPC: Alpha + Beta (2)				
							JV	(WF			
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			2,								
Relinquished By Fluor Hanfo S. W. HALL Relinquished By	rd Prin	M	All	PR 2 6	2007 Date/Time	Received By Received By	14 E. D. Signer 2	6 2007 Date/Time,	S = Sc	xliment DL ≈ Drum Liqui	
			things to a second second				_		SI. = SI W = W	udee WI = Wine ater I. = Limid	
Relinquished By					Date/Time	Received By		Date/Time	O = O A = A		
Relinquished By			***************************************		Date/Time	Received By		Date/Time			

Disposed By

Date/Time

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FINAL SAMPLE DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

PNNL J7I) 3001: U0 576 2 Ole 11:	38 1 07	,		CHAIN O	F CUSTODY	/SAMPLE ANALYSI	S REQUEST		S07-003-201
Collector Fluor F. M. F	lamord					t/Requester		Telephone No.	MSIN	FAX
SAF No.	WLL.					Stewart ng Origin		509-376-5056 Purchase Order		
S07-003 Project Title						ord Site		į		
SURV. MARCH	2007					HHE -H-	506-E	Ice Chest No. E	Enc Temp	•
Severn Trent Inco	rporated. Ric	hland				l of Shipment Vehicle		Bill of Lading/A	ir Bill No.	
Protocol	3.124(3.41)3.76.37-444344	-			NO.		ority: 45 Days	Offsite Property	No.	
SURV POSSIBLE SAMPI ** ** Contains Radi releasable per DOE Ord	oactive Materia	l at cor	entrations that	ате not regula	ted for transportation pe		SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PNNL closure of 14 days. WSCF: Batch all PNNL GW samples sul		, G, I, S, and W 07 SAFs into	mption: Yes No one SDG, not to exceed SDG
Sample No.	Lab ID		Date	Time	No/Type Contain	нет	Sample Analysi	s		Preservative
B1MDP9	***************************************	W	4/26/7	1017	1x20-mL P	Activity Scan		- Michigan	None	L
B1MDP9		W	1		1x1000-mL P	906.0_H3_LSC:	Tritium (1)		None	-
B1MDP9		W	V	V	1x1000-mL P	9310_ALPHABE	TA_GPC: Alpha + Beta (2)		HNO3 to pH <2	
							ブ VXW	PH		
***************************************		ļ		-				- W-10		
		-					***************************************			
Relinquished By Fluor Hanford F M HALL	Print	The state of the s	Sign	PR 26	200 ^{Date/Time}	Received By ERIC Day	Print SiAPR 2	6 2007 Date/Time	S = Soil	Matrix * DS = Drum Soli
Relinquished By			γ -		Date/Time	Received by	(. 0	Date/Time	SE = Sediment SO = Solid SI = Sludge W = Water	T = Tissue WI = Wine L = Liquid
Relinquished By Relinquished By					Date/Time	Received By Received By		Date/Time	O = Oil A = Air	V = Vegetation X = Other

Disposed By

Date/Time

FINAL SAMPLE

DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)



Jamph: Checkent List

Ιħ	Ork Order Number 570 30013-8	6/ NATT SAFI 507-003
¥*,1	Ork Order Number 770 30013-8	Sam of Custody & 807-003-189,193,197,
	Castlody Sears on shipping commissionals	the state of the s
S	Custody Seals dated and signed?	Maria Tres Was
3	Chain of Custody record pressure	MAII Yes (WN)
4	Cooler temperature Na Property Namber of samules in samples of samules	Yes No.
á	Number of samules in Shipping comme.	Mich despite the service of the serv
9	Sample helding times execution	
,	Samples havetapecustody seats	NA VYELLEN
ý	Sample are In good condition broken	- Vapriconne samples laber.
lv	Sample p.H. taken? NATI JH 2	pling property of the property
· I	*For documentation only No correctly, a non-ne	
Ž.	Were any anomalies identified in sample receipt?	
	Description of anomalies (include sample number,	Yes;; ::e
imple 	Custodian In Darby	4/20/17
<u>Ch</u>	Analysis Regorises	1230
erro desencia.		
suc int	formed on by	
	ction necessary. process as is.	Person contacted

TS	5/17/2007 9:49:21 AM			Sample Prep		-	***************************************	Balance Id	:1120482733	
L RI	384868, Pacific Northwest National La Pacific Northwest National Lab	boratory ,	7Y Ulso P SR Uraniu	rpRC5016/5086, S m-234,235,238 by	epRC5067(5039 Alpha Spec	9)		Pipet #	t:	
Ω	AnalyDueDate: 06/08/2007	1913		T: HANFORD				Sep1 DT/Tm Tech	:	
F	Batch: 7121263 WATER SEQ Batch, Test: None	pCi/L		PM, Qi	uote: SA , 5767	71		Sep2 DT/Tm Tech	:	
Ð								Prep Tech	: ,BockJ	
	Work Order, Lot, Total Amt Sample Date /Unit A	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
٨	1 JVXPL-1-AF		200.90g,in	200.90g	UITC17350	200				
	J7D300118-4-SAMP	***************************************	**	***************************************	05/09/07,pd 01/20/04,r	<u></u>			**************************************	
	### ### ##############################	AmtRe	c: 20ML,2X500ML,4	XLP,3X4LP #Containers	: 10		Scr.	Alpha: -2.56E-03 uCi/Sa	Beta: 6.6	69E-03 uCi/Sa
10	2 JVXPL-1-AH-X		200.10g,in	200.10g	UITC17351					
	J7D300118-4-DUP 		******	***	05/09/07,pd 01/20/04,r		***************************************			
	04/25/2007 10:45	AmtRe	ec: 20ML,2X500ML,4)	XLP,3X4LP #Containers	: 10		Scr:	Alpha: -2.56E-03 uCi/Sa	Beta: 6.6	69E-03 uCi/Sa
1	3 JVXQR-1-AF		200.60g,in	200.60g	UITC17352					
	J7D300118-5-SAMP 	***	*****	*****	05/09/07,pd 01/20/04,r		*******			
	04/25/2007 09:00	AmtRe	ec: 20ML,2X500ML,4X	XLP,3X4LP #Containers:	: 10		Scr:	Alpha: -2.25E-03 uCi/Sa	Betar 1.0	02E-03 uCi/Sa
V			198.20g,in	198.20g	UITC17353					
	J7E010000-263-BLK 				05/09/07,pd 01/20/04,r					
	04/25/2007 10:45	AmtRe	:c: #C	Containers: 1			Scr:	Alpha:		Beta:
3	5 JV128-1-AC-C		201.10g,in	201.10g	UISG1442	- \(\)		April.		Dela,
	J7E010000-263-LCS				04/25/07,pd 01/20/04,r					
	04/25/2007 10:45	AmtRe	ic: #C	Containers: 1			Ser:	Alpha:		Beta:
Ì	Comments: PH (2.098 3			ortanioro.			551.	Alpha.		Dela.
	7	3-1-1-0.1								
	All Clients for Batch: 384868, Pacific Northwest Nat:	ional Laborat	ory Paci	ific Northwest N	ational Lab,	SA , 57671				
	U-232 RDL: pCi	/L LCL:20) UCL:105	5 RPD:20	U-234	RDL:1.00E	+00 pci/L	LCL: U	CL: RPI):
	STL Richland Key: In - Initial Amt, f Richland Wa. pd - Prep Dt, r - R			- Sep1, s2 - Sep2 ct-Cocktailed Added	Page 1	ISV - In	sufficient Volum	e for Analysis	•	O Cnt: 5 SamplePrep v4.8.26
01		<u> </u>							. –	

5/17/2007 9:	49:26 AM
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Sample Preparation/Analysis

7Y Ulso PrpRC5016/5086, SepRC5067(5039) SR Uranium-234,235,238 by Alpha Spec

51 CLIENT: HANFORD

Balance	Id:1	120	48273
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Pipet #: ___

Sep1 DT/Tm Tech:

RIAnalyDueDate: 06/08/2007 Batch: 7121263

SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

									Prep Te	ech: ,BockJ	
Work Order, L Sample Dat	' 11	Tot Acidifie			Aliq Amt n-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analys Init/Date	
ช-235	RDL:1.00E+00	pCi/L	LCL:	UCL: I	RPD:	U-238	RDL:1.00E+0	00 pCi/L	LCL:	UCL:	RPD:
JV1281AA-BLK	ζ:										
U-232	RDL:	pCi/L	LCL:20	UCL:105 1	RPD:20	U-234	RDL:1.00E+0	0 pCi/L	LCL:	UCL:	RPD:
U-235	RDL:1.00E+00	pCi/L	LCL:	UCL: 1	RPD:	U-238	RDL:1.00E+0	00 pCi/L	LCL:	UCL:	RPD:
JV1281AC-LCS	;:										
U-232	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Uranium	RDL:	pCi/L	LCL:70	UCL:130	RPD:20
JVXPL1AF-SAM	IP Calc Info:										
Uncert	Level (#s).: 2	Decay t	to SaDt: Y	Blk Subt.: N	Sci-Not	Y ODR	s: B				
JV1281AA-BLK	ξ :										
Uncert	Level (#s).: 2	Decay t	to SaDt: Y	Blk Subt.: N	Sci.Not	Y ODR	s: B				
JV1281AC-LCS):	_									
Uncert	Level (#s).: 2	Decay t	to SaDt: Y	Blk Subt.: N	Sci.Not	Y ODR	s: B				
						Approved 1	Der			Date	

Page 2

STL Richland Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ISV - Insufficient Volume for Analysis

WO Cnt: 5 Prep_SamplePrep v4.8.26

5/31/2007 8:51:20 AM

ICOC Fraction Transfer/Status Report ByDate: 5/31/2006, 6/5/2007, Batch: '7121263', User: *ALL Order By DateTimeAccepting

Q Batch Work	Ord CurStat	us	Accepting		Comments
7121263					
AC	InCnt1	BockJ	5/17/2007 9:43	:10	
SC		wagarr	IsBatched	5/1/2007 10:31:54 AM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep	5/17/2007 9:43:10 AM	RICH-RC-5016 Revision 6
SC		BockJ	Prep1C	5/17/2007 9:49:24 AM	RICH-RC-5016 REVISION 6
SC		HarveyK	Prep2C	5/23/2007 6:29:53 PM	RICH-RC-5086 REV2
SC		HarveyK	Sep2C	5/24/2007 12:31:14 PM	RICH-RC-5039 REV5
SC		StringerR	InCnt1	5/24/2007 1:17:24 PM	RICH-RD-0008 REVISION 4
AC		BockJ	5/17/2007 9:49	24	
AC		HarveyK	5/23/2007 6:29	53 PM	
AC		HarveyK	5/24/2007 12:3	1:14	
AC		StringerR	5/24/2007 1:17	24 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5 ICOCFractions v4.8.26

6/5/2007 2:19:52 PM		Samı	ple Pre	eparation/Ana		Balance ld:1120482733						
384868, Pacific Northwest Na Pacific Northwest National La	ational Laboratory ,	AZ Gross Alpha I					Pipet #:					
AnalyDueDate: 06/11/2007		57 Gross Alpha I		using Am-241 curv	/e		Sep1 DT/Tm Tech:					
Batch: 7121266 WATE	R pCi/L			Quote: SA , 5767	·							
SEQ Batch, Test: None	•		•,		, ,	Sep2 DT/Tm Tech:						
Work Order, Lot, Tot	tal Initial Aliquot	QC Tracer						Tech: ,BockJ / A P	A			
	t/Unit Amt/Unit	Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:			
1 JVXV0-1-AC	186.20g,in				• So							
7D300138-1-SAMP 	[**************************************	(.	5 48.1		10F	1336	6/8/3				
04/26/2007 08:52	AmtRec: 20	OML,2XLP #Conf	tainers: 3			Scr:	Alpha: -7.52E-06 u	ıCi/Sa Beta: 2.f	01E-04 uCi/Sa			
2 JVXV6-1-AC	199.70g,in			Lung		1/0.4	144	7 010	107 K			
7D300138-2-SAMP 	11			47.9		10A	171	φ 410	104 -			
11	AmtRec: 20	JML,2XLP #Conf	tainers: 3			Scr:	Alpha: -1.53E-04 u	iCi/Qa Bota: 6.1	33E-04 uCi/Sa			
JVXV6-1-AE-X	198.40g,in	***************************************			1		Aprill 1.00E 0 0	Olda Deta. U.E	ISE-04 UCIISA			
7D300138-2-DUP 	H			142.2		10 B	The second secon					
04/26/2007 09:42	AmtRec: 20	OML,2XLP #Conf	tainers: 3			Scr:	Alpha: -1.53E-04 ut	Ci/Sa Beta: 6.5	33E-04 uCi/Sa			
JVXWF-1-AC	191.30g,in						,		G-04 00000			
7D300138-3-SAMP 11 				49.2		100						
04/26/2007 09:17	AmtRec: 20)ML,2XLP #Cont	tainers: 3			Scr:	Alpha: -1.56E-05 ut	Ci/Sa Beta: 2.4	15 E-04 uCi/Sa			
5 JVXWH-1-AC	173.20g,in	The state of the s				101						
7D300138-4-SAMP 		*********************************		43.7		109						
04/26/2007 10:12	AmtRec: 20l)ML,2XLP #Cont	tainers: 3			Scr:	Alpha: -2.72E-04 u(Ci/Sa Beta: 3.9	97E-04 uCi/Sa			
6 JV13E-1-AA-B	200.30g,in					101						
J7E010000-266-BLK - 		***************************************		6,5		1 U I						
04/26/2007 09:42	AmtRec:	#Containers:	:1			Scr;	Alpha:	•	Beta:			
7 JV13E-1-AC-C	199.60g,in	ASD4204		/ - 6		***************************************	***************************************	52 6	8 07 R			
7E010000-266-LCS 	[aumaneeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee	05/17/07,pd 02/09/06,r	<i>ن</i>	V 0.9		11	J /4 1 -		21016			
04/26/2007 09:42	AmtRec:	#Containers:	: 1			Sor:	Alpha:		Beta:			
							-					
STL Richland Key: In - Initia	ial Amt, fi - Final Amt, di - Dilu	uted Amt, s1 - Sep1, s	s2 - Sep2	Page 1	ISV - Ir	nsufficient Volum	ne for Analysis	W	O Cnt; 7			
Richland Wa. pd - Prep	p Dt, r - Reference Dt, ec-Enric	chment Cell, ct-Cockta	ailed Adde						SamplePrep v4.3			

6/5/2007 2:19:57 PM			ple Prepara	tion/An	alysis	Balance ld:1120482733					
		AZ Gross Alpha S7 Gross Alpha		Am-241 cı	urve	Pipet #:					
AnalyDueDate: 06/11/2007		51 CLIENT: HAN	NFORD			Sep1 DT/Tm Tech:					
Batch: 7121266 SEQ Batch, Test: None	pCi/L						Sep2 DT/Tm 1	ech:			
						Prep Tech: ,BockJ					
Work Order, Lot, Tota Sample DateTime Amt/		QC Tracer Prep Date		Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments		
	est National Laboratory	Pacific N	orthwest Natio	onal Lab,	SA , 5767	1					
384868, Pacific Northw VXV01AC-SAMP Constituent ALPHA RDL:3			Forthwest Natio	onal Lab,	SA , 5767	1					
384868, Pacific Northw VXV01AC-SAMP Constituent ALPHA RDL:3 V13E1AA-BLK: ALPHA RDL:3	List:	UCL:		onal Lab,	SA , 5767	1					
384868, Pacific Northw VXV01AC-SAMP Constituent ALPHA RDL:3 V13E1AA-BLK: ALPHA RDL:3 V13E1AC-LCS: Am-241 RDL:	List: pCi/L LCL:	UCL:	RPD:	onal Lab,	SA , 5767	1					
384868, Pacific Northw VXV01AC-SAMP Constituent ALPHA RDL:3 V13E1AA-BLK: ALPHA RDL:3 V13E1AC-LCS: Am-241 RDL: VXV01AC-SAMP Calc Info: Uncert Level (#s).: 2	pCi/L LCL:	UCL:	RPD: RPD: RPD:20		SA , 5767 DRs: B	1					
384868, Pacific Northw VXV01AC-SAMP Constituent ALPHA RDL:3 V13E1AA-BLK: ALPHA RDL:3 V13E1AC-LCS: Am-241 RDL: VXV01AC-SAMP Calc Info: Uncert Level (#s).: 2 V13E1AA-BLK: Uncert Level (#s).: 2	pCi/L LCL: pCi/L LCL: pCi/L LCL:	UCL: UCL:	RPD: RPD: RPD:20 Sci.Not.:	: Y 0		1					
384868, Pacific Northw VXV01AC-SAMP Constituent ALPHA RDL:3 V13E1AA-BLK: ALPHA RDL:3 V13E1AC-LCS: Am-241 RDL: VXV01AC-SAMP Calc Info: Uncert Level (#s).: 2 V13E1AA-BLK:	pCi/L LCL: pCi/L LCL: pCi/L LCL:70 Decay to SaDt: Y	UCL: UCL: UCL:130 Blk Subt.: N	RPD: RPD: RPD:20 Sci.Not.: Sci.Not.:	: Y 0	DRs: B	1					

STL Richland Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 2 ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep_SamplePrep v4.8.26

6/11/2007 10:50:38 AM

ICOC Fraction Transfer/Status Report ByDate: 6/11/2006, 6/16/2007, Batch: '7121266', User: 'ALL Order By DateTimeAccepting

Batch Work (Ord CurStat	tus A	ccepting		Comments
121266					
C	CalcC	BockJ	6/5/2007 2:14:3	34 PM	
C		wagarr	IsBatched	5/1/2007 10:31:54 AM	ICOC RADCALC v4.8.26
C		BockJ	InPrep	6/5/2007 2:14:34 PM	RICH-RC-5016 Revision 6
>		BockJ	Prep1C	6/5/2007 2:19:56 PM	RICH-RC-5014 REVISION 6
		AshworthA	InPrep2	6/7/2007 8:32:44 AM	RICH-RC-5014 REVISION 6
		AshworthA	Prep2C	6/8/2007 12:24:43 PM	RICH-RC-5014 REVISION 6
7		BlackCL	InCnt1	6/8/2007 12:30:16 PM	RICH-RD-0003 REVISION 5
7		DAWKINSO	CalcC	6/8/2007 8:36:28 PM	RICH-RD-0003 REVISION 5
2		BockJ	6/5/2007 2:19:5	56 PM	
2		AshworthA	6/7/2007 8:32:4	4 AM	
9		AshworthA	6/8/2007 12:24:	43 PM	
7		BlackCL	6/8/2007 12:30:	16 PM	
7		DAWKINSO	6/8/2007 8:36:2	8 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

6/5/2007 2:13:56 PM Sample Preparation/Analysis Balance Id:1120482733 384868, Pacific Northwest National Laboratory , BC Gross Beta PrpRC5014 Pipet #: Pacific Northwest National Lab S8 Gross Beta by GPC using Sr/Y-90 curve AnalyDueDate: 06/11/2007 Sep1 DT/Tm Tech: 5I CLIENT: HANFORD Batch: 7121267 PM. Quote: SA . 57671 Sep2 DT/Tm Tech: SEQ Batch, Test: None Prep Tech: ,BockJ /A P A Work Order, Lot. Initial Aliquot QC Tracer Total Count On | Off Dish Ppt or Count Detector CR Analyst, Comments: Sample DateTime Amt/Unit Amt/Unit Prep Date Size Geometry Time Min id (24hr) Circle Init/Date 1 JVXV0-1-AD 185.60g,in 100 1.5 89.6 1423 J7D300138-1-SAMP 04/26/2007 08:52 AmtRec: 20ML.2XLP #Containers: 3 Alpha: -7.52 E-06 uCi/Sa Beta: 2.01E-04 uCi/Sa 2 JVXV6-1-AD 200.70q,in NB 84.1 J7D300138-2-SAMP AmtRec: 20ML,2XLP #Containers: 3 Alpha: -1.53E-04 uCi/Sa Beta: 6.33E-04 uCi/Sa 3 JVXWF-1-AD 188.20g,in 43,4 ALL J7D300138-3-SAMP AmtRec: 20ML.2XLP #Containers: 3 Alpha: -1.56E-05 uCi/Sa Beta: 2.45E-04 uCi/Sa 4 JVXWF-1-AE-X 188.90q,in S4.4 J7D300138-3-DUP HI 04/26/2007 09:17 AmtRec: 20ML,2XLP #Containers: 3 Scr: Alpha: -1.56E-05 uCi/Sa Beta: 2.45E-04 uCi/Sa 5 JVXWH-1-AD 168.90g,in 80.8 271 J7D300138-4-SAMP 04/26/2007 10:12 AmtRec: 20ML.2XLP #Containers: 3 Alpha: -2.72E-04 uCi/Sa Beta: 3.97E-04 uCi/Sa 6 JV13F-1-AA-B 197.80g,in DIS 0.3 J7E010000-267-BLK 04/26/2007 09:17 AmtRec: #Containers: 1 Scr: Alpha: Beta: S 7 JV13F-1-AC-C BESB3066 200.30q,in 0.4 03/23/07,pd 276 J7E010000-267-LCS 08/08/06,1 04/26/2007 09:17 AmtRec: #Containers: 1 Scr: Alpha: Beta: STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 ISV - Insufficient Volume for Analysis WO Cnt: 7 Page 1 Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

6/5/2007 2:14	:02 PM				nple Prep		Analysis			Balanc	e ld:1120482733	
1				BC Gross Beta S8 Gross Beta	by GPC usin		curve				pet #:	
1	e: 06/11/2007			51 CLIENT: HA	NFORD		· · · · · · · · · · · · · · · · · · ·			Sep1 DT/Tm 1		
Batch: 71212 SEQ Batch, Test		F	oCi/L							Sep2 DT/Tm 1		
											Tech: ,BockJ	
Work Order, L Sample DateT	ime Amt/Unit		Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geomet		in lo		Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Comments:	PHC2.0	s (ed. 136.5	xed du -07	ac of e	rghr S	bereens	·. 95-	(S.C	377			·
	acific Northwest		l Laboratory	Pacific	Northwest 3	National I	Lab, SA, 5	7671				
BETA JV13F1AA-BLK:	Constituent Lis	pCi/L	LCL:	UCL:	RPD:							
BETA UV13F1AC-LCS:	RDL:4	pCi/L	LCL:	UCL:	RPD:							
Sr-90 JVXV01AD-SAMP	RDL:	pCi/L	LCL:70	UCL:130	RPD:20							
	evel (#s).: 2	Decay t	to SaDt: Y	Blk Subt.:	N Sci.	Not.: Y	ODRs: B					
i i	evel (#s).: 2	Decay t	to SaDt: Y	Blk Subt.:	N Sci.	Not.: Y	ODRs: B					
1	evel (#s).: 2	Decay t	to SaDt: Y	Blk Subt.:	N Sci.	Not.: Y	ODRs: B					
						Appr	coved By				Date:	
												-
STL Richland Richland Wa.				uted Amt, s1 - Sep		Page 2	***************************************	ISV - Insuffic	ient Volu	me for Analysis		VO Cnt: 7 SamplePrep v4.8.26

6/11/2007 10:54:40 AM

ICOC Fraction Transfer/Status Report ByDate: 6/11/2006, 6/16/2007, Batch: '7121267', User: *ALL Order By DateTimeAccepting

Batch Work (ord CurSta	tus A	ccepting		Comments
121267	****	Annual and passes of the contract of the contr			
iC	CalcC	BockJ	6/5/2007 2:08:5	2 PM	
SC .		wagarr	IsBatched	5/1/2007 10:31:54 AM	ICOC_RADCALC v4.8.26
C		BockJ	InPrep	6/5/2007 2:08:52 PM	RICH-RC-5016 Revision 6
C		BockJ	Prep1C	6/5/2007 2:14:10 PM	RICH-RC-5014 REVISION 6
C		AshworthA	InPrep2	6/7/2007 8:32:37 AM	RICH-RC-5014 REVISION 6
C		AshworthA	Prep2C	6/8/2007 12:25:30 PM	RICH-RC-5014 REVISION 6
C		BlackCL	InCnt1	6/8/2007 12:30:30 PM	RICH-RD-0003 REVISION 5
C		DAWKINSO	CalcC	6/8/2007 8:36:20 PM	RICH-RD-0003 REVISION 5
C		BockJ	6/5/2007 2:14:1	0 PM	
C		AshworthA	6/7/2007 8:32:3	7 AM	
C		AshworthA	6/8/2007 12:25:	30 PM	
C		BlackCL	6/8/2007 12:30:	30 PM	
C		DAWKINSO	6/8/2007 8:36:2	0 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt:6 ICOCFractions v4.8.26

6/8/2007 5:22:23 PM				Sample Pre	paratio	n/Analysi:	S		Balance Id:	1120482733,11	20482733,1120
384868, Pacific Northy Pacific Northwest Natio AnalyDueDate: 06/0	Laboratory ,	TL Sr-85 b	rp/SepRC5006 y NaI and Sr-90 : HANFORD		7 day ingrowl		Pipet #: Sep1 DT/Tm Tech:				
	WATER	pCi/L		PM,	Quote: 9	SA, 57671			Sep2 DT/Tm Tech:	:	
SEQ Batch, Test: None	All Tests: 71	21271 CLTL, 7121	272 AWTA,						Prep Tech		
Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JVLL6-1-AA J7D250210-1-SAMP		1005.90g,in	SRTB14805 05/09/07,pd 09/11/06,r		1.0	24.6	100	Žć	1243 1204		107 10 10 10 10 10 10 10 10 10 10 10 10 10
04/24/2007 10:32		AmtRe	ec: 20ML,3XLP	#Containers: 4				Scr: /	Alpha: -5.31E-04 uCi/Sa	Beta: 9.	13E-04 uCi/Sa
2 JVLL9-1-AC J7D250210-2-SAMP		1004.80g,in	SRTB14806 05/09/07,pd 09/11/06,r		1.0	24.1	100	2 d 2 d	1243 1264	` } .	1 07 K
04/24/2007 12:20	~~	AmtR	ec: 20ML,3XLP,4LP	#Containers: 5				Scr:	Alpha: 8.93E-04 uCi/Sa		52E-03 uCi/Sa
3 JVLMC-1-AA J7D250210-3-SAMP	MANNE	1006.60g,in	SRTB14807 05/09/07,pd 09/11/06,r		1.0	22.2	100	3 A 3 A	1243	. /	107 r 10107 L
04/24/2007 13:10		AmtR	ec: 20ML,3XLP	#Containers: 4				Scr:	Alpha: 5.36E-04 uCi/Sa	Beta: 3.	
4 JVLMC-1-AC-X J7D250210-3-DUP		1008.60g,in	SRTB14808 05/09/07,pd 09/11/06,r		1.0	23	100	3 <i>b</i> 3b	1243		1/07 K
04/24/2007 13:10		AmtP	tec: 20MŁ,3XLP	#Containers: 4				Scr:	Alpha: 5.36E-04 uCi/Sa	Beta: 3	.28E-04 uCi/Sa
STL Richland Key		t, fi - Final Amt, d				1	ISV - Insuff	icient Volume	for Analysis		VO Cnt: 4 SamplePrep v4.8.

6/8/2007 5:22:25 PM			Sample P	reparatio	n/Analysi	s	<u> </u>	Ralance le	d:1120482733,11	20482733 1120	
384868, Pacific Northwest Nation	al Laboratory ,	CL Sr-90 P	rp/SepRC50	06(5071)	-						
Pacific Northwest National Lab AnalyDueDate: 06/08/2007			y Nal and Sr	-			#:	THE RESERVE THE PROPERTY OF TH			
AnalyDueDate: 06/08/2007	The state of the s	51 CLIENT	: HANFORD					Sep1 DT/Tm Tech:			
Batch: 7121271 WATER SEQ Batch, Test: None	pCi/L		PN	M, Quote: S	SA , 57671	-		Sep2 DT/Tm Tecl	1:		
B Comments			1 13					Prep Tech: ,ManisD			
Work Order, Lot, Total Sample DateTime Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:	
5 JVXPL-1-AD	1008.10g,in	SRTB14809		1.0	23.9	100	3 (6(9/07	<u> </u>	
J7D300118-4-SAMP	·	05/09/07,pd 09/11/06,r					3c	1243	4/10/		
						*******			4 1101	7	
04/25/2007 10:45	AmtRe	ec: 20ML,2X500ML,4X	(LP,3X4LP #Con	tainers: 10		**************	Scr: Al	pha: -2,56E-03 uCi/Sa	Rato: E 4	69E-03 uCi/Sa	
6 JVXQR-1-AD	1008.40g,in	SRTB14810		1.0	24.4	100	34	1 243	6907		
J7D300118-5-SAMP	3 ,	05/09/07,pd 09/11/06,r		•			3 9 20	1293	/	107 L	
					******************		3.0		4) 10		
04/25/2007 09:00	AmtRe	ec: 20ML,2X500ML,4X	(LP,3X4LP #Con	tainers: 10			Scr: Al	pha: -2.25E-03 uCi/Sa	Beta: 1.0	02E-03 uCi/Sa	
7 JV13W-1-AA-B	1005.00g,in	SRTB14811		1.0	24	100	4 A	1243	<i>(</i> ۹)	07 K	
J7E010000-271-BLK		05/09/07,pd 09/11/06,r				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4A	1204	4/1	0/071	
	······································			***********	******************						
04/24/2007 13:10	AmtRe	ec: #C	ontainers: 1				Scr:	Alpha:		Beta:	
8 JV13W-1-AC-C	1001.40g,in	SRSG1346		1.0	24.3	100	4B	1243	9/9/0	7 ~	
J7E010000-271-LCS		04/19/07,pd 09/11/06,r					46	1204	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	107 1	
	~~~~		***************************************							***********	
04/24/2007 13:10	AmtRe	ec: #Co	ontainers: 1		***************************************		Scr:	Alpha:	<u> </u>	Beta:	
	mt, fi - Final Amt, di , r - Reference Dt, ec-			Ū		ISV - Insuffic	cient Volume fo	or Analysis		O Cnt: 8 SamplePrep v4.8.26	

. 6/8/2007 5:22:28 PM		6/8	/2007	5:22:28	PM
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### Sample Preparation/Analysis

Balance Id:1120482733,1120482733,1120

CL Sr-90 Prp/SepRC5006(5071)

51 CLIENT: HANFORD

TL Sr-85 by Nal and Sr-90 by GPC 7 day ingrowth

Pipet	#:	

AnalyDueDate: 06/08/2007

pCi/L

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ManisD 

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:

#### Comments:

Batch: 7121271

SEQ Batch, Test: None

All Clients	for Batch:	····									
	Pacific Northw	est Nationa	l Laboratory	Pacific N	orthwest Nati	onal Lab,	SA , 57671				
VLL61AA-SAMP Constituent List:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20
V13W1AA-BL	K:										
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
JV13W1AC-LC	S:										
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20
VLL61AA-SAI	MP Calc Info:										
Uncert V13W1AA-BL	Level (#s).: 2	Decay 1	to SaDt: Y	Blk Subt.: N	Sci.Not.	Y OD:	Rs: B				
	Level (#s).: 2	Decay 1	to SaDt: Y	Blk Subt.: N	Sci.Not.	.: Y OD	Rs: B				
V13W1AC-LC											
Uncert	Level (#s).: 2	Decay 1	to SaDt: Y	Blk Subt.: N	Sci.Not.	: Y OD	Rs: B				
						Approved	ву			Date:	

Page 3

STL Richland Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ISV - Insufficient Volume for Analysis

Prep_SamplePrep v4.8.26

WO Cnt: 8

6/11/2007 10:05:33 AM

# ICOC Fraction Transfer/Status Report ByDate: 6/11/2006, 6/16/2007, Batch: '7121271', User: *ALL Order By DateTimeAccepting

A Daten WO	rk Ord CurStar	tus A	ccepting		Comments
121271	And the state of t				
C	Rev1C	BockJ	5/24/2007 11:3	11:17	
C		wagarr	IsBatched	5/1/2007 10:31:54 AM	ICOC_RADCALC v4.8.26
C		BockJ	InPrep	5/24/2007 11:31:17 AM	rich-rc-5014 rEVISION 6
0		BockJ	Prep1C	5/24/2007 11:41:53 AM	RICH-RC-5016 REVISION 6
		ManisD	InSep1	5/24/2007 12:38:40 PM	RICH-RC-5006 REVISION 6
		ManisD	Sep1C	6/4/2007 8:26:15 AM	RICH-RC-5006 REVISION 6
2		BlackCL	InCnt1	6/4/2007 8:33:55 AM	RICH-RD-0007 REVISION 5
2		BlackCL	Cnt1C	6/4/2007 1:45:01 PM	RICH-RD-0007 REVISION 5
		ManisD	InSep2	6/8/2007 7:03:23 AM	RICH-RC-5071 REVISION 4
		ManisD	Sep2C	6/8/2007 5:30:45 PM	RICH-RC-5071 REVISION 4
		DAWKINSO	InCnt2	6/8/2007 7:40:49 PM	RICH-RD-0003 REVISION 5
		StringerR	CalcC	6/10/2007 2:07:01 PM	RICH-RD-0003 REVISION 5
		NortonJ	Rev1C	6/11/2007 10:05:03 AM	RICHRC0002 REV7
;		BockJ	5/24/2007 11:4	1:53	
		ManisD	5/24/2007 12:3	8:40	
		ManisD	6/4/2007 8:26:1	5 AM	
0		BlackCL	6/4/2007 8:33:5	5 AM	
		BlackCL	6/4/2007 1:45:0	1 PM	
		ManisD	6/8/2007 7:03:2	3 AM	
		ManisD	6/8/2007 5:30:4	5 PM	
)		DAWKINSO	6/8/2007 7:40:4	9 PM	
		StringerR	6/10/2007 2:07:	01 PM	
>		NortonJ	6/11/2007 10:05	5:03	

Page 1

AC: Accepting Entry; SC: Status Change

STL Richland Richland Wa.

Grp Rec Cnt: 11 ICOCFractions v4.8.26



# *** RE-ANALYSIS REQUEST *** DUE DATE ( | S( )

CUSTOMER PGW
ANALYSIS Gamma
MATRIX Water
LOT NUMBER 570350310
SAMPLE DELIVERY GROUP
OLD BATCH NUMBER 71721777
NEW BATCH NUMBER
LAB SAMPLE ID REASON FOR REQUEST & ANALYSIS COMMENTS
1) all failed (0.5)
3)
4)
5)
6)
7)
8)
9)
10)
11)
12)
13)
14)
15) /
(6)
(7)
(8)
(9)
20)
LAB OC ID Assigned with new batch

Ω̈́	6/
TIS	38 Pa
RI	A
RICHL,	
ANI	B
ם	
-	1
	J7

6/12/2007 9:26:16 AM		Samp	le Prepa	ration/An	alvsis		Ralanco	ld:1120482733	
384868, Pacific Northwest National I	_aboratory , Al	W Gamma PrpRC			,	-			
Pacific Northwest National Lab	T.	A Gamma by HP	GE				Pipet	t #:	
AnalyDueDate: 06/08/2007		51 CLIENT: HANF	FORD				Sep1 DT/Tm Tec	:h:	
Batch: 7163192 WATER	pCi/L		PM, Qu	ote: SA , 57	671		- Sep2 DT/Tm Tec	sh.	
SEQ Batch, Test: None				·			-		
Work Order Law III Total							Prep Ted	ch: BockJ / A P	'A
Work Order, Lot, Sample DateTime Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JVLL9-2-AA	2001.60g,in		- Alter	100 mL	100	67	21	112	1010
J7D250210-2-SAMP				100 ~ -	100	G 7	· ~ (	113	1013/07 -
04/24/2007 12:20	AmtRec: 20ML	,3XLP,4LP #Con	ntainers: 5			Sor:	Alpha: 8.93E-04 uCi/Sa	Rota: 1	1.52E-03 uCi/Sa
2 JVXPL-1-AL-X							. aprila diode of dolog	/	
J7D300118-4-DUP							6 0724	1/4/6	<u>'</u>
		~~~~					0///	7770	//>
04/25/2007 10:45	AmtRec: 20ML	,2X500ML,4XLP,3X4LP	#Containers:	10		Scr:	Alpha: -2.56E-03 uCi/Sa	Beta: 6	6.69E-03 uCi/Sa
3 JVXPL-2-AA	1932.40g,in					(510	2114	0/1	3/07 ~
J7D300118-4-SAMP						$\mathcal{O}^{(1)}$			7-1-7
04/25/2007 10:45	AmtRec: 20ML	,2X500ML,4XLP,3X4LP	#Containers: 1	10		Scr:	Alpha: -2.56E-03 uCi/Sa	Rata: 6	6.69E-03 uCi/Sa
4 JVXQR-2-AA	1955.20g,in							· 1	1
J7D300118-5-SAMP					ļ	611	2115	ali	3/07 r
04/25/2007 09:00	AmtRec: 20ML	2X500ML,4XLP,3X4LP	#Containers: 1	0		Scr:	Alpha: -2.25E-03 uCi/Sa	Reta: 1	.02E-03 uCi/Sa
5 J0Q5Q-1-AA-B	1996.40g,in						· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
J7F120000-192-BLK						61	2 2110	e (e	113/07~
04/25/2007 09:00	AmtRec:	#Containers: 1	1			Scr:	Alpha:		Date
6 J0Q5Q-1-AC-C	1998.80g,in	QCAG1368		- 1/				. 1	Beta:
J7F120000-192-LCS	J,	05/30/07,pd 03/07/05,r		V	4	G8	2117	- a	13/07 2
04/25/2007 09:00	AmtRec:	#Containers: 1	1			Scr:	Alpha	**************	Date
			-		W. VIII.	3 01.	Alpha:		Beta:
STL Richland Key: In - Initial Amt									
,	fi - Final Amt, di - Diluteo Reference Dt, ec-Enrichm			age 1	ISV -	Insufficient Volur	me for Analysis		VO Cnt: 6
	TOTAL DI CO CHICHI	en oen, de-oocklan	IEU AUUEU					Prep_	SamplePrep v4.8.26

STL	6/12/2007 9:26:18	АМ					
RICHLAND	AnalyDueDate: 06/08/2007 Batch: 7163192 SEQ Batch, Test: None						
	Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Amt/				
	Comments: JVLL9	SAMP "Comments."	. NO Dup. po				

All Clients for Batch:

Sample	Preparation/Analy	
Sample	Preparation/Analy	/SIS

AW Gamma PrpRC5017 TA Gamma by HPGE 51 CLIENT: HANFORD

Balance Id:1120482733

Pipet #: ___

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
								·		

t of gamma sample, used 2 (1) liter bottles intended for SR-90. JB 6/12/07" Dup. poured,out of sample. Please recount on diff. detector. JB 6/12/07"

304660	, Pacific Northwes	*****	1 * = 1								
304000,	, racitic Motonwes	C NACIONA.	L Madoratory	Pacific	Northwest Nati	onal Lab,	SA , 57671				
VLL92AA-SA	AMP Constituent Li	st:		· · · · · · · · · · · · · · · · · · ·					****		
Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL: .00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
0Q5Q1AA-BI	LK:										
Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
0Q5Q1AC-LC	cs:										
Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:	pCi/L	LCL:70	UCL:130	RPD:20	· -		£	2021,0	0021100	***************************************
	AMP Calc Info:										
Uncert	: Level (#s).: 2	Decay t	to SaDt: Y	Blk Subt.:	N Sci.Not.	: Y ODR	s: B				
Q5Q1AA-BI	K:										
	Level (#s).: 2	Decay t	to SaDt: Y	Blk Subt.:	N Sci.Not.	: Y ODR	s: B				
Q5Q1AC-LC	S:										
Uncert	Level (#s).: 2	Decay t	to SaDt: Y	Blk Subt.:	N Sci.Not.	: Y ODR	s: B				

Approved By

Date: ____

STL Richland Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 2

ISV - Insufficient Volume for Analysis

WO Cnt: 6 Prep_SamplePrep v4.8.26

6/14/2007 1:51:48 PM

ICOC Fraction Transfer/Status Report ByDate: 6/14/2006, 6/19/2007, Batch: '7163192', User: *ALL Order By DateTimeAccepting

Q Batch Work	Ord CurStat	tus A	ccepting		Comments
7163192					
AC	CalcC	BockJ	6/12/2007 9:07	:41	
SC		antonsonl	IsBatched	6/12/2007 8:38:14 AM	ICOC_RADCALC v4.8.26
SC .		BockJ	InPrep	6/12/2007 9:07:41 AM	rich-rc-5016 rEVISION 6
SC		AshworthA	InPrep2	6/12/2007 11:54:07 AM	RICH-RC-5017 REVISION 4
SC .		AshworthA	Prep2C	6/13/2007 5:23:18 PM	RICH-RC-5017 REVISION 4
SC .		StringerR	InCnt1	6/13/2007 5:26:07 PM	RICH-RD-0007 REVISION 6
C .		StringerR	CalcC	6/14/2007 7:54:03 AM	RICH-RD-0007 REVISION 6
C		AshworthA	6/12/2007 11:5	4:07	
C		AshworthA	6/13/2007 5:23	18 PM	
.C		StringerR	6/13/2007 5:26	07 PM	
C		StringerR	6/14/2007 7:54:	03	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt:5 ICOCFractions v4.8.26 46/1/2007 2:00:53 PM Sample Preparation/Analysis Balance Id:1120482733 384868, Pacific Northwest National Laboratory, BN I-129 Prp/SepRC5025 Pipet #: Pacific Northwest National Lah TB Gamma by LEPD 5I CLIENT: HANFORD Sep1 DT/Tm Tech: AnalyDueDate: 06/08/2007 PM, Quote: SA, 57671 Batch: 7121275 Sep2 DT/Tm Tech: SEQ Batch, Test: None Prep Tech: .BockJ Work Order, Lot, Initial Aliquot QC Tracer Dish Count On I Off Total Ppt or Count CR Analyst, Detector Comments: Amt/Unit Amt/Unit Sample DateTime Prep Date Size Geometry Time Min ld (24hr) Circle Init/Date 3934.00q,in LU 1824 T JVXPA-1-AA ITA6314 100 05/30/07 J7D300118-1-SAMP 04/25/2007 11:45 AmtRec: 20ML,2X4LP #Containers: 3 Scr: Alpha: 2.50E-04 uCi/Sa Beta: 2.80E-03 uCi/Sa 2 JVXPC-1-AA 3943.70q,in ITA6315 1824 36.2 05/30/07 J7D300118-2-SAMP AmtRec: 20ML 2X4LP #Containers: 3 Scr. Alpha: 1.16E-03 uCi/Sa Beta: 1.84E-03 uCi/Sa -3 JVXPF-1-AA 3923.50g,in ITA6316 2008 37.3 L2 05/30/07 J7D300118-3-SAMP 04/25/2007 11:20 AmtRec: 20ML.2X4LP #Containers: 3 Scr: Alpha: -2.35E-04 uCi/Sa Beta: 9.72E-04 uCi/Sa 4 JVXPL-1-AC 3931.50q,in ITA6317 2011 37.6 05/30/07 J7D300118-4-SAMP 04/25/2007 10:45 AmtRec: 20ML,2X500ML,4XLP,3X4LP #Containers: 10 Scr: Alpha: -2.56E-03 uCi/Sa Beta: 6.69E-03 uCi/Sa .5 JVXQR-1-AC 3957.20a.in ITA6318 2011 05/30/07 J7D300118-5-SAMP 04/25/2007 09:00 Scr: Alpha: -2.25E-03 uCi/Sa Beta: 1.02E-03 uCi/Sa AmtRec: 20ML.2X500ML.4XLP.3X4LP #Containers: 10 6 JVXQR-1-AK-X 3937.90q,in ITA6319 2158 J7D300118-5-DUP 04/25/2007 09:00 AmtRec: 20ML,2X500ML,4XLP,3X4LP #Containers: 10 Alpha: -2.25E-03 uCi/Sa Beta: 1.02E-03 uCi/Sa Scr: 7 JV133-1-AA-B ITA6320 3850.10g,in 2201 05/30/07 J7E010000-275-BLK 04/25/2007 09:00 Scr: Alpha: Beta: AmtRec: #Containers: 1

STL Richland Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt; **7** Prep_SamplePrep v4.8.26

6/1/2007 2:00):57 PM			Sam	iple Pre	paration/	Analysis		Baland	e ld:1120482733	
InalyDuoDa	te: 06/08/2007			BN I-129 Prp/Se TB Gamma by L 5I CLIENT: HA	_EPD				Pi Sep1 DT/Tm	pet #: Fech:	
Batch: 71212		p	Ci/L						Sep2 DT/Tm		
SEQ Batch, Tes		۳	- · · ·						Pren '	Tech: ,BockJ	
W-4-O-4-	(11 1	itial Aliquat	II OCT	Dish			Detector			Com
Work Order, Sample DateT			nitial Aliquot Amt/Unit	QC Tracer Prep Date	Size	Ppt or Geome		Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JV133-1-AC-C		380	00.70g,in	ISD0750 04/25/07,pd 04/11/07,r		38.	5 100	L5	2201	6/6/07 OFC	
04/25/2007 09:0	CONTRACTOR OF THE PROPERTY OF		AmtRec:	#Containe	ers: 1			Sci	r: Alpha:		Beta:
Comments:	PH-new	wal	B 6-1-	07							
ll Clients f 384868, F	or Batch: Pacific Northwes	st National	Laboratory	Pacific	Northwest	National 1	Lab, SA, 57	671			
WYDAIAB_GAW	Constituent Li	c+·			-						
I-129 V1331AA-BLK:	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:						
I-129 V1331AC-LCS:	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:						
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20						
	Calc Info: Level (#s).: 2	Decay t	o SaDt: Y	Blk Subt.:	N Sci	.Not.: Y	ODRs: B				
	Level (#s).: 2	Decay t	o SaDt: Y	Blk Subt.:	N Sci	.Not.: Y	ODRs: B				
	Level (#s).: 2	Decay t	o SaDt: Y	Blk Subt.:	N Sci	.Not.: Y	ODRs: B				
						App	roved By			Date:	
STL Richland	Kev: In - Initial	Amt fir-Fin	al Amt. di - Dili	uted Amt, s1 - Sep	1 s2 - Sen2	Page 2	15	SV - Insufficient V	olume for Analysis	W	O Cnt; 8
Richland Wa.	-	•		chment Cell, ct-Coo		-					SamplePrep v4

6/11/2007 2:34:03 PM

ICOC Fraction Transfer/Status Report ByDate: 6/11/2006, 6/16/2007, Batch: '7121275', User: *ALL Order By DateTimeAccepting

a Batch Wor	k Ord CurStat	tus A	ccepting		Comments
7121275			and to real conditions are a source or a section of the section o		
1 <i>C</i>	CalcC	BockJ	6/1/2007 1:42:4	13 PM	
SC .		wagarr	IsBatched	5/1/2007 10:31:54 AM	ICOC_RADCALC v4.8.26
SC .		BockJ	InPrep	6/1/2007 1:42:43 PM	RICH-RC-5014 Revision 6
SC		BockJ	Prep1C	6/1/2007 2:02:12 PM	RICH-RC-5017 REVISION 5
SC .		BostedD	InPrep2	6/6/2007 9:43:00 AM	RICHRC5025 REV3
iC		BostedD	Prep2C	6/6/2007 2:11:45 PM	RICHRC5025 REV3
C		DAWKINSO	InCnt1	6/6/2007 3:05:17 PM	RICH-RD-0007 REVISION 5
C		BlackCL	CalcC	6/7/2007 5:22:41 AM	RICH-RD-0007 REVISION 5
C		BockJ	6/1/2007 2:02:1	32 PM	
C		BostedD	6/6/2007 9:43:0	00 AM	
C		BostedD	6/6/2007 2:11:3	34 PM	
C		BostedD	6/6/2007 2:11:4	45 PM	
C		DAWKINSO	6/6/2007 3:05:1	17 PM	
С		BlackCL	6/7/2007 5:22:4	11 AM	

AC: Accepting Entry; SC: Status Change

STL Richland Richland Wa.

Grp Rec Cnt:7 ICOCFractions v4.8.26

STL RICHLAND

Page 1



*** RE-COUNT REQUEST *** DUE DATE 5807 (2)11()

arrama and Daniel	,
CUSTOMER PGU	
ANALYSIS TOP	
MATRIX UCCELER	
LOT NUMBER 570360118	
SAMPLE DELIVERY GROUP	
OLD BATCH NUMBER 7121270	

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) 000	TSIZ 7 Plane Shake, Wipl 4
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5/31/2007 12:41:15 384868, Pacific Nor	PM			Sample Prepa	aration/Ana	lysis		Balance I	d:	
Pacific Northwest Na	itional Lab	al Laboratory ,		Prp/SepRC5065 etium-99 by Liquid	Scint			Pipet	#:	
AnalyDueDate: 06	/08/2007			T: HANFORD	SCIIIL			Sep1 DT/Tm Tec	h:	
Batch: 7151397	WATER	pCi/L		PM, Qu	iote: SA , 576	71		Sep2 DT/Tm Tec		
SEQ Batch, Test: Non-	e				•			-		
Work Order, Lot,	Total Amt	Total	Initial Aliquet					Prep Tec		
Sample Date	/Unit	Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments
JVXPL-2-AE								U II		
7D300118-4-SAMP										
						**************************************			***************************************	
04/25/2007 10:45		AmtR	lec: 20ML,2X500ML,4	XLP,3X4LP #Containers:	10		Scr:	Alpha: -2.56E-03 uCi/Sa	Beta: 6.6	69E-03 uCi/Sa
2 JVXPL-2-AK-X 17D300118-4-DUP										
04/25/2007 10:45		AmtR	ec: 20ML,2X500ML,4	XLP,3X4LP #Containers:	10		Scr:	Alpha: -2.56E-03 uCi/Sa	Beta: 6.6	69E-03 uCi/Sa
JVXQR-2-AE						- 1 - 1				
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JVXQR-2-AJ-S	Sharington	Alian	IEC. ZUIVIL,ZADOUIVIL,4	XLP,3X4LP #Containers:	10		Scr:	Alpha: -2.25E-03 uCi/Sa	Beta: 1.0	02E-03 uCi/Sa
7D300118-5-MS										
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04/25/2007 09:00	8 18 % W.	AmtR	ec: 20ML,2X500ML,4	XLP,3X4LP #Containers:	10		Scr:	Alpha: -2.25E-03 uCi/Sa	Beta: 1.0	02E-03 uCi/Sa
JV13P-2-AA-B										
7E010000-270-BLK 	F (8 MB18 8 2									
04/25/2007 10:45	100 Mary 100	AmtR	00' #f	Containers: 1			Com	A la la		
JV13P-2-AC-C	***************************************	Villi	ec. #\	Jonamers, 1		~	Ser:	Alpha:		Beta:
7E010000-270-LCS										
A COLUMN TO THE PROPERTY OF TH						·		******		
04/25/2007 10:45		AmtR	ec: #0	Containers: 1			Scr:	Alpha:		Beta:
JV13P-2-AD-B										
7E010000-270-BLK 										
04/25/2007 10:45		AmtR	er #	Containers: 1			Scr:	Alnha		Rota:
		Ann		Jonamers, 1			ŞG.	Alpha:		Beta:
		nt, fi - Final Amt, di			Page 1	ISV - In	sufficient Volun	ne for Analysis	N	/O Cnt: 7
Richland Wa.	pd - Prep Dt,	r - Reference Dt, ec-	Enrichment Cell,	ct-Cocktailed Added						ICOC v4

5/31/2007 12:41:22 PM			mple Preparati	on/Analy	sis		Balance	ld:	
d		FP Tc-99 Prp/ S5 Technetius	SepRC5065 n-99 by Liquid Scini	t			Pipe	et #:	
AnalyDueDate: 06/08/2007		51 CLIENT: H	- •	•			Sep1 DT/Tm Te	ch:	
Batch: 7151397	pCi/L						Sep2 DT/Tm Te	ch:	
SEQ Batch, Test: None									
Work Order, Lot, Total Amt	Total	Initial Aliquot	Adj Aliq Amt QC	Tracer		<u> </u>	Prep Te		_
Sample Date /Unit	Acidified/Unit	Amt/Unit		ep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Comments: JT18E-SAMP " JT2MC-SAMP (JT3NL-SAMP (Comments. "	iced due to screening re:	sults. JB 05/30/07*						
All Clients for Batch:									
384868, Pacific Northw	est National Labor	ratory Pacific	Northwest Nationa	al Lab, S	57671				
JVXPL2AE-SAMP Constituent	List:			······					-
Tc-99 RDL:15 JVXQR2AJ-MS:	pCi/L LCL:	70 UCL:130	RPD:20						
JV13P2AA-BLK:	#1 Am								
TC-99 RDL:15 JV13P2AC-LCS:	pCi/L LCL:	UCL:	RPD:						
Tc-99 RDL:15 UV13P2AD-BLK:	pCi/L LCL:	70 UCL:130	RPD:20						
Tc-99 RDL:15 JVXPL2AE-SAMP Calc Info:	pCi/L LCL:	UCL:	RPD:						
Uncert Level (#s).: 2 JVXQR2AJ-MS:	Decay to SaDt	: Y Blk Subt.:	N Sci.Not.: Y	ODRs	В				
Uncert Level (#s): 2 JV13P2AA-BLK:	Decay to SaDt	: Y Blk Subt.:	N Sci.Not.: Y	ODRs	В				
Uncert Level (#s):: 2 JV13P2AC-LCS:	Decay to SaDt	: Y Blk Subt.:	N Sci.Not.: Y	ODRs	В				
Uncert Level (#s).: 2 JV13P2AD-BLK:	Decay to SaDt	: Y Blk Subt.:	N Sci.Not.: Y	ODRs:	В				
Uncert Level (#s).: 2	Decay to SaDt	: Y Blk Subt.:	N Sci.Not.: Y	ODRs	В				
				pproved By				Date:	
9		di - Diluted Amt, s1 - Sep c-Enrichment Cell, ct-Co			ISV - In	sufficient Volum	e for Analysis	W	O Cnt: 7

6/4/2007 1:24:08 PM

ICOC Fraction Transfer/Status Report ByDate: 6/4/2006, 6/9/2007, Batch: '7151397', User: *ALL Order By DateTimeAccepting

Q Batch V	Vork Ord (CurStatus		Accepting		Comments
7151397 AC	Ca	alcC	BlackCL	6/1/2007 12:4	3:58 PM	
SC SC AC			BlackCL StringerR StringerR	InCnt1 CalcC 6/3/2007 1:16	6/1/2007 12:43:58 PM 6/3/2007 1:16:00 PM :00 PM	RICH-RD-0001 REVISION 3 RICH-RD-0001 REVISION 3

Page 1

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 2 ICOCFractions v4.8.26

STL RICHLAND

5/1/2007 10:29:32 AM 384868, Pacific Northwe			Sample Pro	eparation/	Analysis	The state of the s	Balance Id:	12445
llacitic Northcat NI-1:	. 1 3 1.		Prp/SepRC5007					V 1 1 2
Pacific Northwest National Pacific Northwest Nat	ai Lab		ium by Liquid Scir	nt			т фест	5-21-07pm
AnalyDueDate: 06/11/2	2007 W	51/01 51 CLI	ENT: HANFORD			Se	ep1 DT/Tm Tech:	3-41-01200
	ATER	pCi/L	PM,	Quote: SA,	57671	Se	ep2 DT/Tm Tech:	
SEQ Batch, Test: None							Prep Tech:	
SEQ Batch, Test: None Work Order, Lot,	Total	Initial Aliquot	QC Tracer	Count	Detector			
Sample DateTime	Amt/Unit	Amt/Unit	Prep Date	Time Min	Detector Id	Count On (Off (24hr) Circle	CR Analys Init/Date	
1 JVXV0-1-AA								
J7D300138-1-SAMP	MICT WIN							
04/26/2007 08:52		AmtRec: 20ML,2XLP	#Containers: 3			Scr:	Alpha:	Beta:
2 JVXV0-1-AE-X								
J7D300138-1-DUP 							·····	
04/26/2007 08:52		AmtRec: 20ML,2XLP	#Containers: 3			Scr:	Alaha	0-1-
3 JVXV6-1-AA		Ama ioc. 20vic,27Ci	#Comaniers. 3			3CI.	Alpha:	Beta:
J7D300138-2-SAMP								
04/26/2007 09:42	6 I 4 % IS	AmtRec: 20ML,2XLP	#Containers: 3			Scr:	Alpha:	Beta:
4 JVXWF-1-AA								
J7D300138-3-SAMP	m be mis							
0.4/2C/2007 00.47								**************************************
04/26/2007 09:17 5 JVXWH-1-AA		AmtRec: 20ML,2XLP	#Containers: 3			Scr.	Alpha:	Beta:
⁵ JVXWn-1-AA J7D300138-4-SAMP								
04/26/2007 10:12		AmtRec: 20ML,2XLP	#Containers: 3			Scr:	Alpha:	Beta:
6 JV136-1-AA-B		, , , , , , , , , , , , , , , , , , , ,						554.
J7E010000-276-BLK								
Processor Control of the Control of							******	
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7 JV136-1-AC-C		7						
J7E010000-276-LCS 	[[] #[]							
04/26/2007 08:52		AmtPoc	#Containore: 5			Car	Alaba.	0
5-7-2012001 00.02		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
STL Richland Key: In	- Initial Amt, fi - F	inal Amt, di - Diluted Amt,	s1 - Sep1, s2 - Sep2	Page 1	ISV -	Insufficient Volume for A	Analysis	WO Cnt: 7
Richland Wa. pd -	Prep Dt, r - Refer	ence Dt, ec-Enrichment Ce	ell, ct-Cocktailed Adde	ed				ICOC v4.8.3

5/1/2007 10:29:36	S AM			Sa	mple Pr	reparation/A	nalysis		Balance Id	: 17445	
				AR H-3 Prp/Se S6 Tritium by		int	-		Pipet #	f:	
AnalyDueDate: 0	6/11/2007			51 CLIENT: H				:	Sep1 DT/Tm Tech	: 5-21-0	Tout
AnalyDueDate: 0 Batch: 7121276 SEQ Batch, Test: No		Ī	oCi/L						Sep2 DT/Tm Tech	:	
SEQ Batch, Test: No	ne								Prep Tech	:	
Work Order, Lot,	II Tota	1 11	Initial Aliqu	ot II OC	C Tracer	Count	Detector	Count On Off		nalyst,	Commont
	Amt/L		Amt/Unit	11	ep Date	Time Min	ld	(24hr) Circle		/Date	Comments
8 JV136-1-AD-BX											
J7E010000-276-MBL											
04/26/2007 08:52			AmtRec:	# O	·			^			
9 JV136-1-AE-CM			Aminec:	#Conta	iners: 1			Scr:	Alpha:		Beta:
9	3										
		v. v., v., v., v., v., v., v., v., v., v									·**************
11 148 813 1881 1881 04/26/2007 08:52	16 1 4 1 1 1 1 1 Kd		AmtRec:	#Conta	iners: 1			Scr.	Alpha:		Beta:
0 JV136-1-AF-BN											
J7E010000-276-IBLK	411 # 1 # 1#W27 # W9#										
04/26/2007 08:52			AmtRec;	#Conta	iners: 1			Scr:	Alpha:		Beta:
1 JV136-1-AG-BN											
J7E010000-276-IBLK											
04/26/2007 08:52	20000000000000000000000000000000000000	and the second of the state and the second of the second o	AmtRec:	#Conta	iners: 1			Scr:	Alpha:		Beta:
Comments:							***************************************				
Il Clients for B	atch:		v								
384868, Pacif		Nationa:	Laboratory	Pacific	c Northwes	st National Lab	, SA , 57671				
/XV01AA-SAMP Con					to a second						
H-3 RDL V1361AA-BLK:	:400	pCi/L	LCL:70	UCL:130	RPD:20						
	:400	pCi/L	LCL:	UCL:	RPD:						

JV1361AC-LCS: H-3RDL:400 pCi/L LCL:70 UCL:130 RPD:20 TV1361AD-MBLK: H-3 RDL:400 pCi/L LCL: UCL: RPD: Page 2

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 STL Richland Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ISV - Insufficient Volume for Analysis

WO Cnt: 11 ICOC v4.8.26

126

5/1/2007 10:29:42 A	M			Sa	mple P	reparation/A	Inalysis		Balance Id: 1244	15
AnalyDueDate: 06/ Batch: 7121276 SEQ Batch, Test: None	11/2007		S	R H-3 Prp/Se 6 Tritium by 5I CLIENT: H	Liquid So	cint		Sep1	Pipet #:	07m
Batch: 7121276		рC	i/L					Sep2	DT/Tm Tech:	
SEQ Batch, Test: None									Prep Tech:	
Work Order, Lot, Sample DateTime	Tota Amt/U	- 13	Initial Aliquo Amt/Unit	13	Tracer p Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
JV1361AE-MLCS: H-3 RDL:4 JV1361AF-IBLK: H-3 RDL:4 JV1361AG-IBLK: H-3 RDL:4	100	pCi/L pCi/L	LCL:	UCL:130 UCL: UCL:	RPD:20 RPD:	3				
TVXV01AA-SAMP Calc Uncert Level : TV1361AA-BLK:		Decay to	SaDt: Y	Blk Subt.:	N S	Sci.Not.: Y	ODRs: B			
Uncert Level JV1361AC-LCS:	(#s).: 2	Decay to		Blk Subt.:		Sci.Not.: Y	ODRs: B			
Uncert Level UN1361AD-MBLK: Uncert Level		Decay to	SaDt: Y	Blk Subt.:		Sci.Not.: Y	ODRs: B			
V1361AE-MLCS: Uncert Level V1361AF-IBLK:		_	SaDt: Y	Blk Subt.:		Sci.Not.: Y	ODRs: B			
Uncert Level of Uncert Level		Decay to	SaDt: Y	Blk Subt.:		Sci.Not.: Y	ODRs: B			

Approved By

Date:

STL Richland Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 3 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 11 ICOC v4.8.26 5/25/2007 4:53:23 PM

ICOC Fraction Transfer/Status Report ByDate: 5/25/2006, 5/30/2007, Batch: '7121276', User: 'ALL Order By DateTimeAccepting

Q Batch Wo	ork Ord CurStat	us A	ccepting		Comments
7121276		·			
AC	CalcC	McDowellD	5/21/2007 2:18	:39 PM	
SC		wagarr	IsBatched	5/1/2007 10:31:54 AM	ICOC_RADCALC v4.8.26
SC		McDowellD	Sep1C	5/21/2007 2:18:39 PM	RICH-RC-5007 REVISION 6
SC		BlackCL	InCnt1	5/21/2007 2:36:19 PM	RICH-RD-0001 REVISION 3
SC		BlackCL	CalcC	5/23/2007 7:55:58 AM	RICH-RD-0001 REVISION 3
AC		BlackCL	5/21/2007 2:36	19 PM	
AC		BlackCL	5/23/2007 7:55	58	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 3 ICOCFractions v4.8.26 Rerun

*** RE-ANALYSIS REQUEST ***

DUE DATE 1/8/07

CUSTOMER PNA
ANALYSIS H-3EE
MATRIX Water
LOT NUMBER J7D300106, J7D300112
SAMPLE DELIVERY GROUP
OLD BATCH NUMBER 7/524/2
NEW BATCH NUMBER 7159349

	LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)	AII	High Mank
2)		
3)		V
4)		
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	t AD OCITO	A!d!-b bb
	LAB QC ID	Assigned with new batch.

ശ് <u>ര</u> 6/8/2007 11:19:36 AM		Sample Pre	paration/ <i>A</i>	nalysis		Balance Id:	12424	
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab AnalyDueDate: 06/08/2007 Batch: 7159349 WATER pCi/ SEQ Batch, Test: None All Tests: 7121278 ASUS	U3 Enric	rp/SepRC5024 hed Tritium by Li NT: HANFORD	quid Scint			Pipet #: Sep1 DT/Tm Tech:	6-19-0	7 om
AnalyDueDate: 06/08/2007			Overtex CA	F7C74				
Batch: 7159349 WATER pCi/ SEQ Batch, Test: None All Tests: 7121278 ASUS		9349 ASU3,	Quote: SA ,	5/6/1		Sep2 DT/Tm Tech:		
티						Prep Tech:		
Work Order, Lot, Sample DateTime Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On C (24hr) Circle			Comments:
1 JVXHJ-3-AA			*		***************************************			
J7D300106-1-SAMP								
04/25/2007 11:57	AmtRec: 20ML,3XLP	#Containers: 4			Scr:	Alpha: -5.62E-05 uCi/Sa	Beta: 3.	68E-04 uCi/Sa
2 JVXHJ-3-AC-X								
J7D300106-1-DUP			<u></u>			***************************************		***************************************
04/25/2007 11:57	AmtRec: 20ML,3XLP	#Containers: 4			Scr:	Alpha: -5.62E-05 uCi/Sa	Beta: 3	68E-04 uCi/Sa
3 JVXJV-3-AA								
J7D300106-2-SAMP		~~~~~	~~~~				************	***************************************
04/25/2007 11:19	AmtRec: 20ML,3XLP	#Containers: 4			Sor:	Alpha: 9.90E-05 uCi/Sa	Beta: 7.	54E-04 uCi/Sa
4 JVXKH-3-AA					——————————————————————————————————————			
J7D300106-3-SAMP							**************************************	
04/25/2007 10:37	AmtRec: 20ML,3XLP	#Containers: 4			Scr:	Alpha: -5.88E-04 uCi/Sa	Beta: 8.	57E-04 uCi/Sa
5 JVXMM-3-AA								
J7D300112-1-SAMP	·	***************************************	~~~***					
04/25/2007 12:04	AmtRec: 20ML,3XLP	#Containers: 4			Scr:	Alpha: -4.77E-05 uCi/Sa	Beta: 4	98E-04 uCi/Sa
6 JVXMN-3-AA								
J7D300112-2-SAMP		••••					**************************************	
04/25/2007 09:53	AmtRec: 20ML,3XLP	#Containers: 4			Sor:	Alpha: -4.40E-05 uCi/Sa	Beta: 3	02E-04 uCi/Sa
7 JVXMT-3-AA								
J7D300112-3-SAMP		**************************************			*******			
04/25/2007 08:00	AmtRec: 20ML,3XLP	#Containers: 4			Scr:	Alpha: 8.61E-05 uCi/Sa	Beta: 3	00E-04 uCi/Sa
STL Richland Key: In - Initial Amt, fi - Final A Richland Wa. pd - Prep Dt, r - Reference			Page 1	ISV -	Insufficient Volum	e for Analysis	V	VO Cnt: 7 ICOC v4.8.2

Balance Id: 13434

Pipet #: ______

Sep1 DT/Tm Tech: 6-19-07-pm 496/8/2007 11:19:38 AM Sample Preparation/Analysis 384868, Pacific Northwest National Laboratory, AS H-3 Prp/SepRC5024 Pacific Northwest National Lab **U3 Enriched Tritium by Liquid Scint** 5I CLIENT: HANFORD AnalyDueDate: 06/08/2007 PM, Quote: SA, 57671 Batch: 7159349 WATER pCi/L Sep2 DT/Tm Tech: SEQ Batch, Test: None Prep Tech: CR Analyst Work Order, Lot, Total Initial Aliquot **QC** Tracer Count Detector Count On I Off Comments: Amt/Unit Amt/Unit Prep Date Time Min ld (24hr) Circle Init/Date Sample DateTime 8 JVXMX-3-AA J7D300112-4-SAMP Beta: 3.66E-04 uCi/Sa AmtRec: 20ML.3XLP Scr: Alpha: 7.43E-05 uCi/Sa 04/25/2007 10:42 #Containers: 4 9 JVXM0-3-AA J7D300112-5-SAMP Beta: 8.54E-04 uCi/Sa 04/25/2007 11:23 AmtRec: 20ML,3XLP #Containers: 4 Alpha: -6.53E-05 uCi/Sa 10 JOLDQ-1-AA-B J7F080000-349-BLK AmtRec: Scr: Alpha: Beta: 04/25/2007 11:57 #Containers: 1 11 JOLDQ-1-AC-C J7F080000-349-LCS Scr: Beta: Alpha: AmtRec: #Containers: 1 12 JOLDQ-1-AD-B J7F080000-349-BLK Scr: Alpha: Beta: AmtRec: #Containers: 1 Comments: All Clients for Batch: Pacific Northwest National Lab, SA, 57671 384868, Pacific Northwest National Laboratory JVXHJ3AA-SAMP Constituent List: RPD:20 H-3 RDL:1.00E+01 pCi/L LCL:70 UCL:130 WO Cnt: 12 ISV - Insufficient Volume for Analysis Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 STL Richland ICOC v4.8.26 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Richland Wa.

Sample Preparation/Analysis

AS H-3 Prp/SepRC5024 **U3 Enriched Tritium by Liquid Scint**

Balance Id: 19494

Pipet #:

Sep1 DT/Tm Tech: 6-19-074

☐ AnalyDueDate: 06/08/2007

5I CLIENT: HANFORD

Batch: 7159349

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

Work Order, Sample Date	· 11		Initial Aliqu Amt/Unit	11	Tracer op Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
TOLDQ1AA-BLK	:				······································					<u></u>
H-3	RDL:1.00E+01	pCi/L	LCL:	UCL:	RPD:					
JOLDQ1AC-LCS	:									
H-3	RDL:10	pCi/L	LCL:70	UCL:130	RPD:20					
TOLDQ1AD-BLK	:									
H-3	RDL:1.00E+01	pCi/L	LCL:	UCL:	RPD:					
	P Calc Info: Level (#s).: 2	Decay t	o SaDt: Y	Blk Subt.:	: N S	ci.Not.: Y	ODRs: B			
_	Level (#s).: 2	Decay t	o SaDt: Y	Blk Subt.:	N S	ci.Not.: Y	ODRs: B			
JOLDQ1AC-LCS					_					
Uncert	Level (#s).: 2	Decay t	o SaDt: Y	Blk Subt.:	n s	ci.Not.: Y	ODRs: B			
J0LDQ1AD-BLK	:									
Uncert :	Level (#s).: 2	Decay t	o SaDt: Y	Blk Subt.:	n s	ci.Not.: Y	ODRs: B			
						Appı	roved By		Date:	

Page 3

STL Richland Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ISV - Insufficient Volume for Analysis

WO Cnt: 12 ICOC v4.8.26

132

7/2/2007 11:19:10 AM

ICOC Fraction Transfer/Status Report ByDate: 7/2/2006, 7/7/2007, Batch: '7159349', User: *ALL Order By DateTimeAccepting

Q Batch Wor	rk Ord CurStat	tus A	ccepting		Comments
7159349					
4 <i>C</i>	CalcC	McDowellD	6/19/2007 1:05	:59 PM	
S <i>C</i>		mcdowelld	IsBatched	6/15/2007 9:17:29 AM	ICOC_RADCALC v4.8.26
SC		McDowellD	InSep1	6/19/2007 1:05:59 PM	RICH-RC-5024 REVISION 2
SC .		McDowellD	Sep1C	6/29/2007 3:15:37 PM	RICH-RC-5024 REVISION 2
SC .		DAWKINSO	InCnt1	6/29/2007 4:32:02 PM	RICH-RD-0001 REVISION 4
SC		BlackCL	CalcC	7/2/2007 6:17:53 AM	RICH-RD-0001 REVISION 4
C		McDowellD	6/29/2007 3:15:	37 PM	
C		DAWKINSO	6/29/2007 4:32:	02 PM	
C		BlackCL	7/2/2007 6:17:5	3 AM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 4 ICOCFractions v4.8.27

AnalyDueDate: 06/08/2007	6/1/2007 12:32:05 F 384868, Pacific North Pacific Northwest Nat	hwest National Labor		Nat_Laser PrpRC		Analysis			nce Id:112048273	13
### Batch: 7121288 WATER Ug/L PM, Quote: SA, 57671 Sep2 DT/Tm Tech: Sec Sc Patch, Tost: None Pm, Quote: SA, 57671 Pm, Quote: SA, 57671 Pm, Cuote: SC Patch, Tost: None Prep Tech: , Bock Prep Tech: , Bock Pm, Quote: SA, 57671 Pm, Min Detector Count Or (24 in) Circle Cannot Or (24 in) Circle Or (24 in) Circle Cannot Or (24 in) Circle		· ·	≃ 11 a l c							
Work Order, Lot. Armound Armound Armound CC Tracer Count Detector Count Order Cd Count Order Cd Count Order Cd Cd Cd Cd Cd Cd Cd C	Batch: 7121268	WATER	4.	PI	M, Quote: SA,	57671	······································			
More Circler Lot	SEQ Batch, Test: None				,					
Sample Date Time AmtUnit AmtUnit Prep Date Time Min 10 C24hr) Gircle C14hrayst, IntiDate Commer C24hry Gircle C14hrayst, IntiDate C24hrayst, IntiDate C24h	Work Order Lot II	Total	II Initial Aliquet		والمراجع				Tech: ,BockJ	
			:		1	11				Comments:
### ##################################			25.50g,in							
Arribec 20ML 2X500ML AXLP 3X4LP 4Containers: 10 Scr. Alpha: -2.56E-03 uCiVsa Beta: 6.69E-03 uCiVsa		1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
2 JVXPL-1-AJ-S 2 47.0g,in unsi3747 05/2907,id 18-4-MS 05/2907,id			AmtRec: 20ML,2X5/	DOML,4XLP,3X4LP #Con	tainers: 10	***************************************	Scr:	Alnha: -2 56F-03 i	ıCi/Sa Bo	th- 6 60E 02 HOHEA
	JVXPL-1-AJ-S		***************************************					7 Spine 2100 CC CC	10000	d. 0.03E-03 g0v3a
AmiRec: 20ML, 2X500ML, 4XLP, 3X4LP #Containers: 10 Scr: Alpha: -2.58E-03 uCi/Sa Beta: 6.89E-03 uCi/Sa JYXQR-1-AG 26.50g, in JYXQR-1-AG 26.50g, in JYXQR-1-AH-X 27.30g, in JYXQR-1-AH-X 27.30g, in JY3QR-1-AH-B 25.20g, in JY13H-1-AA-B 25.20g, in JY13H-1-AC-C 25.40g, in unst3748 GSC2007 09:00 AmiRec: #Containers: 1 Scr: Alpha: -2.25E-03 uCi/Sa Beta: 1.02E-03 uCi/Sa JY13H-1-AC-C 25.10g, in unst3748 GSC2007 09:00 AmiRec: #Containers: 1 Scr: Alpha: -2.58E-03 uCi/Sa Beta: 1.02E-03 uCi/Sa JY13H-1-AC-C 25.10g, in unst3748 GSC2007 09:00 AmiRec: #Containers: 1 Scr: Alpha: -2.58E-03 uCi/Sa Beta: 1.02E-03 uCi/Sa JY13H-1-AC-C 25.10g, in unst3748 GSC2007 09:00 AmiRec: #Containers: 1 Scr: Alpha: Beta:	711 18M MIL = 18M MIL 1	a idu ti ir nije								
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7D300118-5-SAMP	JVXQR-1-AG			The state of the s	tuners. 10		JUI.	Alpha: -2.56E-03 ti	ICI/Sa Bei	ta: 6.69E-03 uCi/Sa
AntRec: 20ML 2X500ML, 4XLP, 3X4LP #Containers: 10 Scr: Alpha: -2.25E-03 uCi/Sa Beta: 1.02E-03 uCi/Sa JVXQR-1-AH-X 27.30g,in			,							
### Soc. Apha: -2.25E-03 uCi/Sa Beta: 1.02E-03 uCi/Sa ### Soc. Apha: -2.25E-03 uCi/Sa Beta: 1.02E-03 uCi/Sa #### Soc. Apha: -2.25E-03 uCi/Sa #### Soc. Apha: -2.25E-03 uCi/Sa #### Beta: 1.02E-03 uCi/Sa #### Soc. Apha: -2.25E-03 uCi/Sa #### Soc. Apha: -2.25E-03 uCi/Sa #### Beta: 1.02E-03 uCi/Sa #### Soc. Apha: -2.25E-03 uCi/Sa #### Beta: 1.02E-03 uCi/Sa #### Soc. Apha: -2.25E-03 uCi/Sa #### Beta: 1.02E-03 uCi/Sa #### Beta: 1.02E-03 uCi/Sa #### Soc. Apha: -2.25E-03 uCi/Sa #### Beta: 1.02E-03 uCi/Sa ####	04/25/2007 09:00		AmtRec: 20ML 2X51	TOME AYED 3XALD. #Com	toinare: 10					*****************************
7D300118-5-DUP	JVXQR-1-AH-X			OHE, THE JOHNEY HOUSE	.dileto. IV		oci.	Alpha: -2.25E-03 u	·Ci/Sa Bet	ta: 1.02E-03 uCi/Sa
AmtRec: 20ML_2X500ML_4XLP_3X4LP	7D300118-5-DUP		·							
1/1/3/1-1-AA-B 25.20g,in		TOTAL CONTRACTOR OF THE PROPERTY OF THE PROPER	AmtRec: 20ML,2X5(XXML,4XLP,3X4LP #Cont	tainers: 10		Ser:	ålnha: -2 25E-03 ii	iCilCo Bo:	1 00E 00 n0Y0-
7E010000-268-BLK 14/25/2007 09:00 AmtRec: #Containers: 1 Scr: Alpha: Beta: 15 JV13H-1-AC-C 25.40g,in unsf3748 7E010000-268-LCS 05/29/07,pd 14/25/2007 09:00 AmtRec: #Containers: 1 Scr: Alpha: Beta: 15 JV13H-1-AD-C 25.10g,in unsc1694 16 JV13H-1-AD-C 25.10g,in unsc1694 17 JV13H-1-AD-C 25.10g,in unsc1694 18 JC-CONTROL OF SCR: Alpha: Beta: 19 JC-CONTROL OF SCR: Alpha: Beta: 20 JC-CONTROL OF SCR: Alpha: Beta: 20 JC-CONTROL OF SCR: Alpha: Beta: 20 JC-CONTROL OF SCR: Alpha: Beta: 21 JC-CONTROL OF SCR: Alpha: Beta: 22 JC-CONTROL OF SCR: Alpha: Beta: 23 JC-CONTROL OF SCR: Alpha: Beta: 24 JC-CONTROL OF SCR: Alpha: Beta: 25 JC-CONTROL OF SCR: Alpha: Beta: 25 JC-CONTROL OF SCR: Alpha: Beta: 26 JC-CONTROL OF SCR: Alpha: Beta: 27 JC-CONTROL OF SCR: Alpha: Beta: 28 JC-CONTROL OF SCR: Alpha: Beta: 29 JC-CONTROL OF SCR: Alpha: Beta: 20 JC-CONTROL OF SCR: Alpha: Beta: Beta: Bet	JV13H-1-AA-B		······································	PARKETUL AND THE PARKET				AprilaE.ZoE. 60 6	O/Sa Dei	a: 1.02E-03 novoa
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5 JV13H-1-AC-C 25.40g,in unsf3748 J7E010000-268-LCS 05/29/07,pd 01/23/07_r 04/25/2007 09:00 AmtRec: #Containers: 1 Scr: Alpha: Beta: 7 JV13H-1-AD-C 25.10g,in unsc1694 17E010000-268-LCS 05/17/07,pd 04/28/06_r 04/28/2007 09:00 AmtRec: #Containers: 1)4/25/2007 09:00		AmtRec:	#Containers: 1			Sor:	Alpha		D. r.
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STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2, Page 1, ISV - Insufficient Volume for Analysis, WC Cot: 7										

Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

ISV - Insufficient Volume for Analysis

WO Cnt: 7 Prep_SamplePrep v4.8.26

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

)7 12:32:13 F	PM			S	ample Pr	eparation/A	Analysis		Balance Id:112048273	3	
				DH UNat_La					Pipet #:		
uoData: 06/	(00/0007			SS Total Ura 51 CLIENT:	-	А		04	-		
AnalyDueDate: 06/08/2007 Batch: 7121268 SEQ Batch, Test: None				OI CLIENT:	HANFORD			Sep1 DT/Tm Tech:			
			ıg/L				Sep2 DT/Tm Tech:				
,					1122	5 :			Prep Tech: ,BockJ		
Order, Lot,	Total		Initial Aliq	uot II C	C Tracer						
e DateTime	Amt/Ur	18	Amt/Uni		rep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments	
ienis. Att	<20	96 ES.		GB - 6	-1-01						
•					-1-0n						
ents for Bat	cch:		Laboratory		***	t National La	b, SA, 57671				
ents for Bat 868, Pacific G-SAMP Const	tch: : Northwest :ituent List	National	Laboratory	Pacif	.c Northwes	t National La	b, SA, 57671	:			
ents for Bat 868, Pacific G-SAMP Const	tch: c Northwest tituent List	National			***	t National La	b, SA, 57671				
ents for Bat 868, Pacific G-SAMP Const	tch: c Northwest tituent List	National	Laboratory	Pacif	.c Northwes	t National La	b, SA, 57671				
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ents for Bat 868, Pacific	tch: C Northwest	National			***	t National La	b, SA, 57671				

Sci.Not.: Y

Sci.Not.: Y

Sci.Not.: Y

Sci.Not.: Y

Sci.Not.: Y

Page 2

ODRs: B

ODRs: B

ODRs: B

ODRs: B

ODRs: B

Approved By _____ Date: ____

STL Richland Richland Wa.

Uncert Level (#s).: 2

Uncert Level (#s) .: 2

Uncert Level (#s).: 2

Uncert Level (#s).: 2

Uncert Level (#s) .: 2

JVXPL1AJ-MS Calc Info:

JV13H1AA-BLK:

JV13H1AC-LCS:

JV13H1AD-LCS:

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Decay to SaDt: Y

Blk Subt.: N

Blk Subt.: N

Blk Subt.: N

Blk Subt .: N

Blk Subt.: N

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep_SamplePrep v4.8.26

6/8/2007 2:43:51 PM

ICOC Fraction Transfer/Status Report ByDate: 6/8/2006, 6/13/2007, Batch: '7121268', User: *ALL Order By DateTimeAccepting

Batch Work Ord CurS	tatus A	ccepting		Comments
21268				
Cnt1C	BockJ	6/1/2007 12:20):14 PM	
	wagarr	isBatched	5/1/2007 10:31:54 AM	ICOC_RADCALC v4.8.26
	BockJ	InPrep	6/1/2007 12:20:14 PM	RICH-RC-5014 Revision 6
;	BockJ	Prep1C	6/1/2007 12:32:11 PM	RICH-RC-5015 REVISION 4
)	AshworthA	InPrep2	6/6/2007 8:16:20 AM	RICH-RC-5015 REVISION 4
}	AshworthA	Prep2C	6/7/2007 2:27:56 PM	RICH-RC-5015 REVISION 4
;	DobeckiT	Cnt1C	6/8/2007 1:44:49 PM	RICH-RC-5058 REV 7
	BockJ	6/1/2007 12:32	::11 PM	
	AshworthA	6/6/2007 8:16:2	20 AM	
	AshworthA	6/7/2007 2:27:5	56 PM	
	DobeckiT	6/8/2007 1:44;4	49 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5 ICOCFractions v4.8.26